

## Action by lecturers looks unlikely

by David Jobbins and Olga Wojtas

University lecturers are unlikely to speed up the Government's verdict on their latest pay deal with the employers.

Despite an apparent rising tide of anger, the executive of the Association of University Teachers is likely to be able to head off any attempts at tomorrow's emergency council meeting to embroil the union in major action within the universities.

Instead the council is likely to embark on a parliamentary campaign to secure an early meeting of committee B, the second stage of the negotiating process when union and employers together discuss their agreement in across-the-table talks with Department of Education officials.

On May 18 the AUT and employers agreed on a way out of the confusion created by the Clegg Commission's announcement that it wanted to take up to 18 months over a comparability study.

If the Government approves the deal lecturers will get an average of 13 per cent on top of the "flat rate" 6 per cent they have been receiving since April on account of any Clegg award.

The additional increase ranges between 11 and 16 per cent, and is payable from October 1 this year.

A reference to Clegg was part of the 1979 settlement which gave lecturers 10 per cent from October last year. Government approval would lead to a formal withdrawal of the reference to the commission. Union leaders say there is growing anger at the delay in announcing

ing a meeting of committee B. They pressed home the point at a meeting this week with Mr Mark Carlisle, Secretary of State for Education. He told them he hoped there would be no unnecessary delay, and that the committee would meet "as soon as possible". There were no Government indications an announcement was imminent.

Dr Andrew Taylor, AUT president, said that the agreed offer was within the Government's cash limits. Little progress was made either on introduction of prorata payments for part-time staff or an increase in the proportion of lecturer II posts at last week's Burnham further education meeting, which referred the rest of the 1980 claim to arbitration. Further talks take place next month.

The Scottish Further Education Association has called for a 14 per cent interim payment with arbitration as part of the 1980 pay claim, and has strongly criticized the Educational Institute of Scotland for failing to back this.

On the eve of further talks of the Scottish teachers' salaries committee, representing school and further education teachers, the SPEA has rejected the management's present offer of 14 per cent as a final offer, as has the EIS. The EIS is against going to arbitration and is seeking an 18.6 per cent pay award now. It has backed its claim with a series of school strikes nationwide, with both Telford and Stevenson colleges in Edinburgh also affected this week. An SPEA ballot has decisively authorised industrial action but council rejected a motion calling for its immediate implementation.

## Universities await the effects of London-biased research aid

Reaction to the way the University Grants Committee has shared out the £5m set aside to protect nationally important research has been muted.

Those fifteen universities outside London which have been tentatively offered money are acutely conscious that they have only two remaining weeks in which they have to justify receipt of the sums. Those offered nothing are waiting to see how overseas applications stand up.

The money was earmarked to help universities to adapt to the new overseas fees policy. London University has been offered the major share, £3.75m, and the principal has written to all schools to ask which postgraduate work and research might be at risk.

The rest of the money comes from offers of £10,000 and £20,000 to £333,000 which it is suggested should go to the University of Manchester, Professor Robert Haseldine, the UGCT principal, said this week

that if they lost 30 per cent of their overseas intake, their best "guesstimate" the money would cover half the gap in the lost income for one year.

Reading University has been offered £100,000 and staff have been asked to forward details of postgraduate work of national importance.

It is also understood that Strathclyde has been offered £100,000, as has Essex, where the recurrent grant makes some provision for the small increase in home students. At Loughborough the figure is £40,000.

Swansea University has received an offer of £21,000 and is currently making out its case and Bradford has been offered £20,000. The bulk of universities, including Oxford, Leicester, Sheffield, Glasgow, Exeter, Bristol, Southampton, Sussex and Newcastle, have been offered nothing.

## Aston gets cancer study grant

by Ngai Creguer

The Cancer Research Campaign has awarded Aston University a grant of £1.25m to establish an experimental unit, the largest grant ever made to a pharmacy department in the United Kingdom.

It is very rare for the Cancer Research Campaign, which is the largest sponsor in this field, to give even outside Government effort, to make an award of such size. It constitutes about an eighth of the campaign's budgeted spending for this year.

The award is also Aston University's biggest ever single grant. The money will be used to establish a unit of experimental cancer chemotherapy to be led by a research team of Dr Andy Gessner, Dr John Hickman and Professor Malcolm Stevens.

pharmacists have been working on cancer research for some time. The grant will allow further development and consolidation of work being done by Dr D. A. Lewis's in the pharmacy department, and Professor J. A. Blunt, of the chemistry department.

Cancer research in this country is channelled into three areas: surgery, radio therapy and chemotherapy. Of about 100,000 compounds tested over the years only about 30 have been found suitable for anti-cancer drugs.

The campaign aims to fund and maintain six groups for five years. At Aston the money will be used to expand the number of staff and to build and equip a specialist laboratory, an animal house, and a mechanical plant, as well as for new equipment and supplies and consumables.

## UGC may take on computer work

by Robin McKie  
Science Correspondent

The University Grants Committee has been asked if it will take over the £24m a year work of the Computer Board for the universities and the research councils, the quango earmarked for possible closure in Sir Leo Pliatsky's report on reducing Government expenditure.

The committee is divided over the issue of taking on the board's work which involves setting up a central policy for buying and running computers for United Kingdom universities. Many scientists believe it would bring the UGC a great deal of organizational effort, such as setting up regional networks and protocols, for very little cash saving for the Government.

As one senior UGC member

stated: "The original report suggested a saving of a maximum of £30,000. We will have spent that amount of money just seeing if the move is feasible."

The computer board claims that it saves about £3m a year by making firms compete for orders and deal with universities as a group and not individually. This is done on running costs of £175,000 a year with a budget of £12m for capital projects and £12m for recurrent expenditure.

At present, the UGC and the board share one function in providing software computer services for universities. In August, this role, which represents a £5m annual operation, will be completely taken over by the UGC.

It is the remaining functions of the computer board—providing hardware and mainframe computers

for universities and providing national computing centres at London and Manchester which the UGC has to decide if it wishes to take on.

The issue is to be discussed by the UGC and a decision is expected in the next few weeks, although there seems to be no particular enthusiasm for the takeover among committee members.

However, computer board officials do expect that their organization will finally be wound down as some of its functions being given over to the UGC and some powers being devolved to universities. The latter move can be expected as computer costs drop in future as there will be less need to have a central policy and a few market economy for universities to take over.



A medical student looks on while Professor George Bentley examines the knee of a young woman suspected of having damaged ligaments in one of the theatres at the newly-built Royal Liverpool Hospital. The university's faculty of medicine has almost completed its move there.

## Books double in price

Academic books have doubled in price in the past five years, according to research published this week.

Latest figures from the Centre for Library and Information Management, CLAIM, at Loughborough University show that the average cost of an academic book in the United Kingdom went up from £5.57 in 1975 to £10.81 in 1979. At the same time the proportion of books costing less than £5 has gone down from 80 per cent to 47 per cent.

CLAIM found that within the most expensive category, science and technology books, those on chemistry were priced highest.

## Academy to stay

Plans to remove Bath Academy from its unique rustic setting at Cotham, Court in Wiltshire, and merge it with Bath College of Education have been temporarily shelved.

Avon County Council are to review a plan put forward by the academy of selling one of its sites, Mokes Park, in order to refurbish studios and rectify complaints made by both Council for National Academic Awards and the authority over health and safety.

## New council

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negotiations could be undertaken. But the union side declined and the meeting was technically adjourned until June 25.

Union leaders are now fearful for the future of the council if that meeting too is poorly attended by employers' representatives. They were seething with anger—accusing the employers of "apparent contempt" for the new body and a "betrayal" of what had been jointly established as a serious place of negotiating machinery.

The three employers' representatives who did attend were said to be furious, and the secretariat is to impress the importance of attending or arranging a substitute on all members of the management panel.

But the greatest anger came from the union side. They have attached great importance to the joint council as a first step towards their long term aim of negotiating pay and conditions freely outside the statutory confines of the Burnham machinery.

The meeting was due to discuss the escalating numbers of notified contingency redundancies among lecturers—now alleged by NAFHE to have passed the 400 mark—and failure of a number of individual universities to abide by the terms of modal national agreements on redundancy and the use of premature retirement schemes.

## Rising fees will cut sponsorship

The Manpower Services Commission has said it will have to severely reduce the number of students it sponsors on training and retaining courses if increases in course fees of up to 34 per cent are charged by local authorities.

The two local authority associations, the Association of County Councils and the Association of Metropolitan Authorities, are at present negotiating next year's fees with the Commission.

Mr Peter Cotes, education under-secretary of the ACC, said increases in costs and the Clegg settlement on pay had forced local authorities to offer the MSC a range of increases from 25 per cent to 34 per cent. Little reduction in the fees is expected.

The fees would hit the Training Opportunities Programme, already reduced by 10,000 places to 60,000 for next year, the integrated and apprentice training courses run through the various local Training Boards, and the Youth Opportunities Programme.

The fees could be reduced if the commission agrees to allow the average size of classes to increase.

The National Association of Teachers in Further and Higher Education has already warned of the dangers of reducing training. The negotiations are expected to be completed by the end of the month.

## Student grants rise

Post graduate student grants are to go up by 14.7 per cent next year, the Secretary of State for Education, Mr Mark Carlisle, announced this week.

Grants will rise by between £95 and £320 bringing the total grant for students, living away from home and studying in London, to £2,570 from £2,250. Students on the London side will be £2,000 compared with the present £1,800. While those living with parents will rise from £1,370 to £1,565.

## NEXT WEEK

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City

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## Life begins at 4,000 million

by Robin McKie  
Science Correspondent

Remains of the earliest forms of life on earth have been discovered—and dated, at 3,500 million years old—by a team of international scientists at University of California, Los Angeles.

The researchers' work, announced today, shows that life has existed on our planet for almost twice as long as had been previously supposed. It was known that primitive organisms had developed by 2,000 million years ago—but indirect evidence suggested by the UCLA team subsequently indicated that this date should be pushed back to about 3,500 million years ago.

Now the team, led by paleobiologist Dr William Schopf and which includes researchers from Australia, Canada, Germany, Puerto Rico and the United States, has found actual fossils of these primitive micro-organisms.

Many of the bacteria-like microfossils have been revealed as having diverse and very complex forms including filaments, tubes, and spirals, indicating that they had already evolved to a considerable degree of complexity by 3,500 million years ago and can probably be dated as being about 4,000 million years old.

These findings completely disrupt previous theories about the evolution of life on earth. It had been believed that most of our planet's 4,600-million-year history was taken up with the development of increasingly complex chemical compounds which only combined to form primitive life forms in relatively recent pre-history.

New this theory has been shown to be wrong. Life began, quite quickly—the really lengthy period was taken up by the gradual development from simple to complex life, resulting eventually in humans and finally man.

As Dr Schopf pointed out: "The history of life on this planet has not been one dominated by dinosaurs or men but by simple micro-organisms, to which we owe our existence."

The £150,000 project, which has involved researchers in gathering ancient sedimentary rocks from Western Australia, cutting these into thin slivers and examining them under microscopes, is jointly funded by the National Aeronautics and Space Administration and through a US National Science Foundation award. The University of Western Australia, Perth, has also been involved in the work.

Dr Schopf said that before his research began, the accepted first date for life's origins was 2,500 million years ago, although some scientists believed that layered rocks, known as stromatolites, which were fossilized sediments, had been formed by early organisms. However, his work has proved that the "definite" earliest remains have their dates pushed back from 2,500 to 3,500 million years ago.

## DES committee fails to agree on new poly funding system

by John O'Leary

After four months' intensive work a special committee set up by the Department of Education and Science has been unable to agree on a new system of polytechnic financing for 1981-82.

The group set up to devise a successor to last year's controversial "capping the pool" system of cash limits for the public sector, has decided to leave most of the major decisions to ministers and local councils.

But it has come down strongly against premature introduction of a rigid system of national unit costs for polytechnic and college spending—a solution which has been strongly canvassed by Dr Rhodri Iwan, the under-secretary for higher education.

The group's final report was circulated this week to the first meeting of the new higher education planning body set up by the Council of Local Education Authorities. It will be discussed at a second meeting next month and then referred to ministers.

In a key passage the report says: "Our terms of reference require us to move from a unit cost based system but we recognise that a fully worked approach on these terms would involve making judgments about authorities' financial means, educational and financial, about authorities' character and about the machinery in existence for making such judgments." The report does contain two alter-

native methods of introducing a small element of unit cost funding, but both fall far short of the whole system advocated by Dr Boyson and by DES officials when the committee began meeting in February.

Ministers are likely to be equally embarrassed by the report's suggestion that the distribution of polytechnic funds in the current year should be based on the final and unalterable—could be retrospectively modified to suit local institutions which have suffered disproportionate cuts.

The alternatives posed by the group are either to freeze unit costs within individual local authorities or to introduce a mechanism to allow for differing unit costs within an agreed range.

It is recognized that special arrangements might have to be made for the distribution of unit costs within the DES study group.

The group's conclusions take the form of a series of questions to the politicians who will have to decide between the options. Further work on the details of any proposal for 1981-82 will be needed when these have been answered, the report says.

Mr John Boyson, deputy education officer of the Inner London Education Authority and a member of the study group, said: "There is a

difference of opinion which is, as much as anything, about how quickly we can rationally reach a certain point. To present the differences on the group as absolutist positions would be wrong."

Mr Jack Springett, education officer of the Association of Metropolitan Authorities, said that the local authorities were well aware of the difficulties of making judgments on unit costs and wanted to be sure that any new mechanism was acceptable to authorities and institutions.

The Standing Conference of Principals and Directors in Colleges and Institutes of Higher Education also put forward proposals for distributing money from the pool in a policy statement this week. The principals had been excluded from the DES study group.

In the statement the standing conference rejects any suggestion of "patching up or tinkering with the 1980-81 allocation system" and calls for a new system based on claims for each institution to expand by the maintaining authority in consultation with the institution concerned.

Guidelines should be announced annually by the Government and circulated to governors, staff and students as well as to local authorities, the conference believes. Claims would be submitted in two parts, separating expenditure on existing courses from that required to fund approved new developments.

## Direct cash demanded

by Paul Flatler

The directors of the five London polytechnics are preparing to ask for some form of direct national funding if the Inner London Education Authority is broken up as recommended in the Baker report.

The directors are also pressing for a series of major reforms in ILEA whatever decision is made by the Government. The committee chaired by the Inner London Education Authority is investigating the future of the education authority.

In a submission sent to Baroness Young's committee yesterday, the Committee of Directors of London Polytechnics (CDLP) urged the unique contribution of the London polytechnics gives them a good case to call for direct funding or regional funding within a national framework with full local representation.

The polytechnics already enjoy limited by statute, and are not to be taken over by the local authority. Only 20 per cent of their students come from inner London, but 50 per cent come from the greater London region.

The CDLP is calling for five reforms in the way ILEA now operates. They want the authority to be restructured, rolling back development plans with budgets agreed for three years ahead; an agreed statement on educational objectives; more power for switching expenditure; more control of the grading of academic and service staff; and a resource-winning work and the ability to retain the money earned.

The CDLP has deliberately avoided any statement on the merits of the Baker report itself. It is, on this point, that disagreements within the CDLP could have surfaced. The CDLP has adopted most of the points on efficient working put forward by Dr Colin Adams, the rector of Central London Polytechnic.

## UGC confirms decision to cut back on Russian studies

by Ngai Creguer

In the face of overwhelming opposition the University Grants Committee has confirmed recommendations that Russian studies should be discontinued at 19 institutions.

Later this month the committee will tell vice-chancellors that there are no reasons for it to change its mind. The only minor exception is Dundee University, where the proposal was for a further expansion.

The original UGC decision proposed the phase-out of Russian at Keele, Lancaster, Queen Mary College, London, Reading, Sheffield, Sussex and East Anglia, the closure of departments at Aston, Heriot-Watt, Strathclyde, the University of Manchester, the University of Newcastle, Aberystwyth and Coleraine, with staff transferred to neighbouring institutions.

The report was heavily criticised when it came out in January by universities staff, the Association of University Teachers and the British

Universities Association of Slavists. Only Aberystwyth was in favour of the proposals and many universities resolved to keep their Russian intake.

Mr John Akker, deputy general secretary of the AUT said this week: "The report is poorly argued, has not proved the case for rationalization on academic or financial grounds and has given a misleading picture of the situation which is a dangerous precedent for university teaching and research."

"A most serious situation will develop. The AUT national executive will be considering what action it will take at its next meeting in two weeks time."

The decision will cause dismay and confusion in the universities. It is still unclear what the UGC will do if some universities insist that Russian studies should continue. The UGC has, of course, the ultimate financial weapon.

continued on back page

## Plato's People go into business

Students at York University have set up a limited company, with the aim of raising enough money to pay for an extra lecturer. The philosophy students, who have named the company Plato's People, decided this was the most practical way of trying to offset the Government spending cuts.

So far about 60 students, not all philosophers, have agreed to work in their spare time for the local community and to give 15 per cent of their earnings to the company. In between lectures, they are gardeners, baby-sitters, cleaners, painters, furniture shifters, although they admit they are short on skills.

The plan is to raise the money for a 100-signature petition to the vice-chancellor protesting about the cuts. A virtual freeze on appointments

has meant that one member of the department is not being replaced. Mr Ian Morgan, a volunteer student managing the service said: "We hope eventually to have enough money for a lecturer, but if not we will use the money for other educational purposes in the university. We can only do the basic manual jobs but so far we have had excellent results."

"The biggest problem is that there are not enough jobs. We have only just got going so we have not got much money yet but by the end of the year we should be making a few bits. We thought this was better than joining in demonstrations," he said.

Registrar Mr John West-Taylor said: "It seems a very admirable form of self-help."

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# TUC loses its poly monopoly

## Job prospects for young hit by market bias

## Bradford's single system plan

Its basis is that provision for these young people is best made in colleges rather than in schools and that the colleges should offer a wide range of curriculum options including many with a strong vocational

## s for young t bias

for all school-leavers by the following Easter had been virtually met and the record of employment following courses suggested that needs were being met.

## Work demands

## Colleges 'need

Acting registrar Mr William Cotton thought governors might have been influenced by the delay in obtaining a nomination from the TUC's South East regional council. Mr Mick Sharnan, a TUC regional official, accused the

sent, possibly by September.

**Oakes type**

Prospective students should try and find out details about college rooms, including cooking, washing and laundry facilities, cost and distance of travel to the place of study, restrictions on visitors, the size of the room, lighting, furniture, etc.

agreed wages to its manual workers under a private member's Bill both presented to the House of Commons this week.

six. Rooms should be at least 90 sq ft in size, containing a bed, a desk with working space of at least seven sq ft, a wardrobe, shelving for books, a hard back chair, an easy chair, a mirror and desk lamp. The minimum temperature should

ing access to ACAS for people  
planning they were less well  
than others doing the same work  
the same area.

The strike continued in 1979 when hall fees were raised by another 12.5 per cent, and was supported by

viewing its grant to SCARP, which runs voluntary work projects involving thousands of students over the country, after alleging that the group was an "extremist."

"The crude arithmetic on which teacher/pupil ratios are based covers a multitude of deficiencies and defects. The staffing standards embodied in the red book are min-

There is also a need to explore the links of some colleges, adult and community education, says the document. The concept of education as a luxury must be refuted.

This session gives the experienced teachers demonstrating what they know since it is only by expe-

opportunity to hear  
and advisors saying and  
they feel to be important  
experience that one really

There is also a two-day international conference and a full programme of one-day seminars to cater for the person in business as well as everyone within the computer industry.

1. *Journal of the American Medical Association*, 283: 2623-2624, 2000.

## Economist warns of nuclear threat

and aims to call official attention to the need for further examination of the problems of feeding the survivors of a nuclear attack.

Mr Jackson believes that British civil defence arrangements are dangerously outmoded.

"Current procedures in the event of an attack are almost certainly inadequate and most local authori-

The first part of Mr. Jackson's study examines existing arrangements for feeding survivors, compares those with the actual requirements and identifies their weaknesses and shortcomings.

Telephone \_\_\_\_\_

**continue**



# Technicians ready for pay claim

by David Jobbins

University technicians aim to lodge a 1980 pay demand as soon as the Clegg commission report on last year's claim is published. They aim to break the cycle in which negotiations for their October awards do not begin until well after the settlement date.

ASTMS is holding a special meeting in July by which time the Clegg report should be published—to draw up specific proposals.

National officer, Mr Russell Miller, said: "I shall be recommending that we should ask for an increase which takes into account both the increased cost of living and changes in technicians' salaries which have

taken place elsewhere since October 1979."

ASTMS is also likely to seek a move from an October settlement to an April one.

The Clegg commission now says its report is likely to be ready early in July. Both employers and unions had expected publication about the middle of this month. Accusation by the union that delays may have resulted from the submission of late evidence by the Universities' Committee for Non-Teaching Staffs have been hotly denied by the employers.

UCNS has pointed out that early in May it called for publication of the report as soon as possible after the PRU finding became available in mid-May. As in the college lecturers' study

60 computer occupations have been used. But ASTMS argues that as only 10 are from the public sector—representing most of the employees covered by the survey—a weighting factor should be used to take numbers employed into account.

ASTMS says its research department has found that nearly half the people with skills and qualifications similar to those of university technicians work in the public sector, and that their pay levels are among the highest.

ASTMS has also objected to suggestions that the salaries of medical laboratory technicians should be excluded because their qualifications are better than their university equivalents.

## Britain lags behind in provision for minorities

Britain's traditional emphasis on full-time enrolments by school leavers has led the country to lag behind other Western developed nations in the provision of undergraduate education for three important minority groups, MPs have been told.

In a supplementary submission to the Select Committee on Education, the Advisory Council on Adult and Continuing Education identifies people of 22 years and over, women of all ages and part-time students as three groups for whom educational policy has been failing. Investment has been proportionately higher for the school leavers, says ACACE's memorandum.

The council had been asked for further evidence after criticizing provision for adult and continuing education at an earlier session of the select committee. Statistics in the latest submission compare the position in the United Kingdom with that in Australia, Canada, Sweden and the United States, concentrating on the age distribution of undergraduates, the demand for part-time study and the relative costs of part-time and full-time students.

British universities showed the lowest level of recruitment of students aged 22 and over and would only begin to compare with the other countries surveyed if polytechnics and Open Universities were included, says ACACE. With only 20 per cent of university students falling into the mature category, the UK figure would remain bottom of the table even when other higher education institutions were included.

On the question of distribution by sex, ACACE says it is particularly noticeable that only in Britain are the figures for women undergraduates far below the number of men. Women only close the gap in comparisons for the older age groups. "This may reflect the greater need for women to catch up with first degree study because of their fewer numbers in past years amongst the conventional school

leaver entrants to universities", says the submission. "It may also represent the greater opportunities for study time open to older women, especially in finding time for part-time study."

Although the proportion of the postgraduate students in undergraduate study is more comparable, the council points out that in Canada the proportion is three times higher, partly because of the high number of part-time students there. The Canadian experience could be relevant because so many universities were founded on the English or Scottish models.

The Open University significantly improves the British figures on part-time study, which is also responsible for gradually narrowing the gap between men and women undergraduates. Less than six per cent of undergraduates in other universities and polytechnics in the United Kingdom were part-time students.

It is difficult to estimate the demand from adults for part-time education, but the supply is so limited, says the council. Open University courses have been oversubscribed every year since its inception in 1971, with the number of applications running at double the available places available for the next few years.

The council concludes: "It might be argued that this unsatisfied demand could partly be met by more part-time undergraduate provision in universities and polytechnics, and that the existence of this new provision would generate a further demand from adults reluctant, for whatever reason, to enrol in the largely 'distance' study system of the Open University."

Only in the percentage of higher education students receiving Government financial aid did Britain emerge more favourably than the other nations. With 90 per cent of students receiving some money, Britain was well ahead of the field, dramatically ahead of Canada and the United States at 25 per cent. ACACE says this is attributable to concentration on full-time students.

## Science for adults 'littered with the trappings of defeat'

A fresh approach to science education for adults which has become "littered with the trappings of defeat, stemming from inadequate resources, finance, tutors and expertise" is urgently needed, warned an Advisory Council for Adult and Continuing Education science committee.

It said that local education authorities' non-specialist science courses account for no more than 5 per cent of student contact hours. "There would appear to be very little systematic provision of science and mathematics education for adults, although the amount of interest is considerable," says a report by the committee. "Indeed, the average weekly audience figures for *Tomorrow's World* are greater than for adult education enrolment in the arts and other sectors for a whole year."

The committee states that the Workers' Educational Association provided 8,783 courses in 1977-78 of which only 12 per cent were scientific. At the same time, univer-

sity adult education departments provided 10,232 courses of which 14 per cent were in the sciences. Yet in 1978, visitors to science museums represented 33 per cent of national museum figures.

A fresh approach to providing science studies for adult students is needed, says the report. "The committee is eager to contact science specialists in adult and continuing education to learn from their experience and to seek examples of 'best practice' in order to assess and recommend ways forward."

However, there will be difficulties in bringing this about, adults' education is a complex area, the committee says. For instance, properly equipped laboratories for adult centres are hard to come by and there is also dearth of suitable scientific magazines and papers.

There is also a problem in that science is frequently portrayed in the press and by educated people in various negative or unhelpful ways.

## Oxford puts back its spending cuts

by Ngalo Crequer

Oxford University has deferred for a year plans to reduce expenditure, although it expects to face a 3 per cent cut in income in real terms between now and 1981-2.

The decision by the Council and the General Board, which was due to be discussed by Congregation this week, will be kept under review and the need for retrenchment has not been discounted.

In a statement to Congregation the university states that the decision does not mean that savings will not be required in the future. Caution is necessary for a number of reasons. First, 1980-81 is being run by the University Grants Committee as an interim year and talks with universities may lead to a redistribution of resources.

Secondly, the position on pay awards was uncertain and it was not known how far inflation would outstrip Government provision. Thirdly, there was the problem of how many overseas students would still decide to come. At the minimum recommended fee levels income would fall short by about £400,000 a year by 1982-3. If numbers held, a fall by 10 per cent would mean an additional loss of £300,000 a year.

The university had decided to take into account reserves in the general fund of £1.5 million but there is no prospect whatever of maintaining reserves at a level adequate to cover all such uncertainties, says the statement.

Previously, the university had agreed that contingency plans should be prepared to permit a reduction in spending, over two years, to a level 3 per cent below current expenditure, the most which could be achieved without being either disrupted or damaged.

Although the 1979-80 budget had needed to be supplemented by the General Board because of inflation, major cuts had not yet materialized.

## Arts centre planned for Swansea

The University College of Swansea has earmarked £1.1m from development appeal funds to build an arts centre on the campus.

The scheme, which will go out to tender next year, will include a 352-345-seat theatre for drama, music, films, lectures and conferences, a bookshop, art gallery, two banks and academic accommodation.

The banks, bookshop and accommodation are expected to be self-financing. The full cost of the scheme, expected to be "considerably more", because of inflation, will be complemented either by external contributions or additional money from the university.

According to a spokesman, "The University College Council will review the full financial implications of the scheme when tenders have been received." The Welsh Arts Council has been approached for financial assistance.

## UGC secretary honoured in Queen's Birthday List



Honours for Dr Stoman (left) and Dr Suddaby

Mr Geoffrey Cockerill, who has been secretary of the University Grants Committee since 1978, and spent 26 years at the Department of Education and Science, has been appointed a Companion of the Order of the Bath in the Queen's Birthday Honours list published last week.

Also rewarded is Dr Albert Stoman, who as vice-chancellor of Essex University was a leading target of the student protests of the 1960s, who becomes a CBE. Dr Joseph Pope, who retired last September after 10 years as vice-chancellor of Aston University, is knighted.

Three scientists are also given knighthoods: they are Professor Edward Abraham, professor of chemical pathology at the University of Oxford; Professor Alan Harris, senior partner for Harris and Skarman, for services to civil engineering; and Professor Michael Stoker, foreign secretary of the Royal Society, for services to cancer research.

Also knighted are Professor Angus Wilson, the author, and Walter Dakeshott, for services to medical literature. Professor Leonard Schapiro is awarded a CBE for his services to Russian studies. His book, *The Government and Politics of the Soviet Union*, is now in its sixth edition.

After more than four years the peers and sector of higher education has also attracted an award. It goes to Dr Arthur Suddaby, the provost of the City of London Polytechnic, who is awarded a CBE. Dr Suddaby retires next year after 10 years as provost. He is a former chairman of the Committee of Directors of Polytechnics.

CBEs are also awarded to: Mr J. H. Aldham, the county education officer for Hampshire; Professor R. Anderson, professor of pathology at Glasgow University; Mr

A. A. L. Challis, director of polymer engineering, on the Science Research Council; Professor R. Croxall, professor of mechanical engineering at Queens' University, Belfast; Mr F. F. Fisher, the master of Wellington College; Mr Roy Helmore, principal of Cambridge College of Arts and Technology; Professor R. C. Heritage, for services to furniture design; Professor D. S. Lees, chairman of the national insurance advisory committee; Professor R. Lohmann, services to clinical biochemistry; Professor C. W. N. Miles, chairman of the agriculture wages board for England and Wales; Professor A. S. Prother, professor of dental surgery at London University; Professor F. W. Rimmer, Gardiner professor of music, Glasgow University; Professor J. E. Stevens, professor of medieval and renaissance English at Cambridge University, for services to musicology.

These ideals appealed to the undergraduates of the time and between 1965, when the first college opened, and 1972, when the eighth and last was finished, Santa Cruz was deluged with applications from young Californians who had to be turned away to more traditional campuses like Berkeley and UCLA.

But then the funds for further expansion were cut off, leaving Santa Cruz without the professional school facilities, engineering, business and forestry, that had been part of the original campus plan. Student enthusiasm for the campus cooled off quickly. Direct applications to Santa Cruz, which peaked at 5,891 in 1971, were down to 3,607 last year.

Enrolment held up for a while, as Santa Cruz became less selective and accepted more transfer students from other institutions. But by the late 1970s student numbers were beginning to drop.

With the demographic and physical future for public higher education in California looking bleak, the very existence of the campus seems to be in question. Then in 1978 university of California President David Saxon persuaded Robert Sinsheimer, chairman of the California Institute of Technology, to become chancellor at Santa Cruz, and he promised not to cut any of the 364 faculty positions at Santa Cruz until 1984. In effect he gave Dr Sinsheimer five years to turn the institution around.

The new chancellor identified several causes for the decline. One was simply what the campus plan was. Last year the academic statement for 1980-85 calls

"the ineffectiveness of a weak Santacruzanate voted to do so but later

## OU faces 'grave cash crisis'

The Open University faces grave financial difficulties despite having established itself academically, Lord Perry, the retiring vice-chancellor, says in his final report. "An absence of adequate working capital and a wholly unjust VAC bill of £750,000 for its BBC staff were important problems which still had to be resolved after a year of dramatic expenditure cuts, the report says.

The university had been forced to reduce spending by £1.6m in the latter half of the year, a 7.5 per cent cut which had left the institution with no cash reserves at all. Consultations with the Government since then had resulted in an outlook for 1980 that was bleak but less gloomy than the university had originally feared, Lord Perry says.

The report also warns of "the very serious political implications" of the Government's decision to award the fourth television channel to the Independent Broadcasting Authority.

"The difficulty is that this is not yet true and we have to find a way of bridging the gap in the mean time."

## Aberdeen's principal to retire early

Aberdeen University's principal, Sir Fraser Noble, has announced he will retire two years early to enable his successor to follow through "consequential decisions" made next year.

Sir Fraser, who will reach the age limit for university service in 1983, has announced his decision to retire in a letter to the staff. "It has been my view for some time that 1981 will mark a watershed for Aberdeen as for all universities."

## American News

## Santa Cruz upgrades its image

from Clive Cookson

CALIFORNIA All universities in the United States are concerned about student recruitment and retention but few are paying more attention to their annual enrolment figures than the University of California, Santa Cruz. For the continuation of what the campus journalists like to call the "dream" of Santa Cruz, and the very existence of the institution, depend on reversing its decline in popularity.

The "dream" started in the early sixties on a beautiful 2,000 acre estate overlooking the Pacific. where the University of California established the ninth campus of its great state-wide system of public higher education. The emphasis here was on superb teaching in an innovative environment modelled, as a university brochure puts it, "on the time honoured collegiate structure of Oxford and Cambridge."

Instead of traditional grades, Santa Cruz students receive after each course a "narrative evaluation"—a paragraph of written comments but no letter or number to measure their progress. The BBA was to reduce campus applications and encourage a more adventurous attitude to the curriculum.

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Students learn to compare different proteins in an introduction to research lab work at UC Santa Cruz.

Cruz admissions office". That was the legacy of the early years when applicants flocked to Santa Cruz and the campus did not need to sell itself. The contacts with highest school and student recruitment system that should go with a well organized university were missing.

Santa Cruz administrators naturally bristle at suggestions that they are becoming the junior college for Berkeley or that Berkeley is bailing them out. They point out that the indirect programme is only a temporary arrangement, though it is expected to continue at least until 1983. But the fact remains that the programme is the principal reason why Santa Cruz increased its enrolment last year and is expected to increase to about 6,200 this year. The minimum head count demanded by UC President Saxon is 6,350 by 1983-84.

Chancellor Sinsheimer is also counting on an increase in postgraduate enrolment. At present less than 7 per cent of the student body is in this category—very little for a university. He intends to push the postgraduate proportion above 10 per cent, mainly by developing new master's degree programmes in applied sciences and social sciences.

Unfortunately the combination of no growth and an unusually young, mostly tenured faculty leaves Santa Cruz with little academic flexibility in the years ahead. Dr Sinsheimer expects an annual faculty turnover of only 3 per cent. That would relieve just 10 new positions a year.

The distinctive and controversial narrative evaluation system is a handicap for undergraduate recruitment. Doctor Saxon believes "Many potential students are afraid to entrust themselves to such a system. They are afraid that if they apply to graduate or professional school or an employer, they cannot reduce the usual academic transcript and grade point average."

Dr Sinsheimer says he personally favours giving students the option of receiving a letter grade instead of a written evaluation for any course. Last year the academic statement for 1980-85 calls

"the ineffectiveness of a weak Santacruzanate voted to do so but later

reversed itself and decided to continue the present system, which only in certain advanced science courses. In fact only a small minority takes advantage of this option. Academic vice-president John Marcum compares the grading debate to Mount St Helens—it is almost certain to erupt again.

However, the chancellor shares the opinion of most faculty members at Santa Cruz, that narrative evaluations are intrinsically superior to conventional grades, both because they give a more complete and valuable record and because they create a less competitive atmosphere on campus. Those who want to change the system would do so reluctantly, to please the outside world.

The other distinctive feature of UC Santa Cruz, its college system, has been streamlined and reorganized by Dr Sinsheimer. The eight colleges used to share responsibility for the curriculum and for faculty hiring and promotion with campus-wide boards of studies.

Unfortunately the dual system of academic appointments grew increasingly unwieldy and college curriculum failed to flourish alongside the campus-wide boards. So last year the academic senate agreed to a large majority to abolish all colleges' responsibilities for all power held by the boards. Partial exceptions were made for two colleges because of special circumstances.

However, to prove that he does not want to abolish all the colleges, Dr Sinsheimer says he is implementing another reorganization this year, which will give colleges more control over students' life and abolish the campus-wide position of vice-chancellor for student affairs who will use their new powers to decrease dropout rates, which are appallingly high at Santa Cruz. Only half of all freshmen graduate within six years.

If they succeed it will be the best possible sign that the dream of combining the relaxed atmosphere of a small college with the excellence of the University of California lives on among the redwood trees of Santa Cruz.

## University presses grind to a halt

from Tom Mullaney

CHICAGO

If the American economy is currently in a recession, the state of scholarly communication in America might be seen as mirrored in a depression. While the top 10 of the 65 American university presses prosper and account for the prime share of sales and titles, the majority scrape by and sometimes die. Wesleyan and McGill University are the latest two to shut their presses.

The general economy is expected to turn up in the next 12 to 18 months. But the prospects for recovery from a decade-long slump in the scholarly sector remain cloudy. This is causing frustration among academic publishers, journal editors, libraries and, perhaps most pointedly, aspiring faculty.

While publication remains the chief means of communicating new knowledge, for new faculty, it is the very root of academic advancement.

The golden era in scholarly publishing ran from 1950 to 1970 when an information explosion was under way. University presses jumped from 25 to more than 60, libraries were erected by the thousands, the number of academic journals doubled and tripled while university and government funding flowed apace. But that academic boom came to a sudden and drastic change in the early 1970s as rising costs strained academic budgets.

In 1973 in an effort to broaden their support base, university press directors approached the National Endowment for the Humanities. As part of the American Council of Learned Societies was asked to sponsor a conference on scholarly publication in the United States. This resulted in appointment of the National Endowment for the Humanities to the study.

After three years of deliberation the enquiry issued its report last year (John Hopkins Press). It contained a dozen recommendations—some highly controversial—that the report said "must be made during the next decade or so if humanistic scholarship is to continue to flourish."

The enquiry report painted a grim financial picture as the prices of scholarly books and journals increased at a rapid rate and acquisition budgets fell far behind, fewer new book orders were placed and libraries felt the need to shift expenditures from books to journal purchases.

The final report adopted a "systems approach" to scholarly publishing. It saw the fiscal cure to that area's dilemma in consolidation that would result in a more efficient, more powerful, more interrelationship between the worlds of academic publishing, scholarly journals and research libraries.

The enquiry urged smaller presses to merge or to share space and more equipment facilities at larger houses. It foresaw savings in the collaboration on matters of autotyping, warehousing and shipping. It also urged a slowdown in the growth of new scholarly journals in existence. However, the report was weighted

heavily in favour of organizational changes. It proposed both a national periodical centre to store roughly 60,000 serials for nationwide loan and a nationally linked bibliographic system, run by the library of congress. The authors also proposed a national library agency to encourage development of the two national systems and plan new activities for the nation's highly decentralized library system. Finally, it urged creation of an office of scholarly communication within the National Endowment for the Humanities.

Instead of ending the story it turned out to be only an intermission. When university press directors, journal editors and librarians read the report, many reacted with outrage. One university press director remarked that the report was a case of throwing \$600,000 down the drain. He termed the enquiry naive in its attempt to do what he could not think of a good thing contained in the report.

Despite the heated controversy, the enquiry is far from being dead. University publishers have just benton back an attempt to enact the national periodical centre. In law, congressmen William Ford of Michigan slipped enacting legislation for the centre into House Bill 5192 which passed without hearings or a committee report on the proposal.

A hastily-formed group of 30 non-profit publishers, editors and officials of scholarly societies lobbied in the senate to block similar passage. A successfully introduced amendment by Senator Jacob Javits now requires that a presidentially appointed committee will conduct a year long feasibility study of the centre.

Many hope that the study will sound the centre's death knell. After spending US\$600,000 on one study, many disavow, critics are loathe to invest between \$30 and \$60m in a centre they view as unnecessary. Those millions, they argue, could fund an awful many other presses, libraries and journals.

David Borenbaum of the Brookings Institution and one of the report's co-authors, thinks that many critics are being unrealistic and failing to face the future. "If the national periodical centre is not passed, I think we will have a full-scale intellectual crisis in this country," Borenbaum thinks that "ten years from now most of the recommendations will be in place."

press directors and editors, after asking NEH and the American Council of Learned Societies (ACLS) to convene a commission, are busy denouncing the results and hoping to undo the damage done.

Clive Cookson, North American Editor, The Times Higher Education Supplement, is in the National Press Building, Room 541, Washington DC 20045. Telephone 1 (202) 538 5765.

## Brazilian students bear the brunt of rocketing costs

from Fay Hausman Professors and students at major private universities in Brazil have been taking action over the last few months in protests over low pay and rising tuition fees.

The students claim the tuition fees have risen beyond the officially authorized rates while university rectors are warning that the alarming deficit of private universities in 1980 affect the very survival of private higher education.

Like everything else in Brazil in the last five years, the costs of higher education have skyrocketed. Tuition fees in the private sector are controlled by the Federal Education Council, which each year sets an "official" rate of permissible increases.

This year's "permissible" increase was announced as 35 per cent. This figure is only part of a complex formula under which several academic ingredients must be mixed to come up with the total permissible increase—far above the

publicly announced 35 per cent. The students are protesting and refusing to pay what they see as an arbitrary, unauthorized financial burden. The rectors, on the other hand, complain that with inflation running at about 75 per cent the 35 per cent increase is totally inadequate even as a "basic" rate.

The chief culprit in everyone's eyes is the Ministry of Education and Culture, known by its acronym as the MEC. MEC funds account for only 33 per cent of education expenses at all levels.

Over the last few years the federal government has tried, with barely moderate success, to get the municipalities to provide the funds for primary education which is, in theory, compulsory and free for all children between seven and 14.

In fact, less than 74 per cent of these children are in school. Public secondary schooling is supposed to be financed by the states. The MEC's financial responsibilities have thus been retrenched with

65 per cent of this year's budget earmarked for higher education and the rest for the development of new policies at the primary level and for different specific projects such as the one to restructure the career and improve the remuneration of professors in higher education.

But with its budget cut by 20 per cent, as part of a fiscal austerity programme aiming to help contain Brazil's runaway inflation, the MEC operates under severe constraints. To shoulder the enormous expense of what some became, in Brazilian terms, "mass" higher education.

Up to the mid sixties, nearly two thirds of the students went to tuition-free federal and state universities and colleges, where enrolments and academic standards were strictly controlled. The other third had to "pay" to study at private institutions, some of them extremely expensive, which asked 70 per cent of university students, most of them mediocre and some of them down-

right deplorable. Federal and state universities have expanded more slowly. They still charge only nominal tuition fees but because of their demanding standards they have remained the nearly exclusive preserve of the academically better prepared candidates from well-to-do families.

Perennial government attempts to find a formula for getting all Brazilian university students to pay tuitions have always been dropped again with great speed.

Starting next year, and whatever its difficulties in providing the funds, the federal universities, the MEC will institutionalize its voluntary and random contributions to be given to the needs of the Catholic universities to forestall, or at least attenuate, crises such as the present one.

Since 1964 enrolments in higher education have increased more than tenfold, from 142,000 to 1,487,000. This staggering growth was triggered chiefly by the gov-



## Overseas News

## Germany's high flyers stay grounded

from James Hutchinson

**BONN**  
West German educationists and politicians are expressing concern that the country is failing to give adequate encouragement to young people of exceptional intelligence and to provide them with the means to develop their abilities. There is a growing demand for what is being called the "promotion of an elite".

A leading member of the opposition party, the Christian Democratic Union, said recently that the United States, the Soviet Union, Britain and France look poised to spot high flyers early on and to ensure that their talents were

developed. "We're far behind," he added, "in the international table of Nobel Prize winners and in the number of academic authors whose work is recognized internationally."

The German university of today, it is said, would be quite incapable of producing another Einstein. He would be beaten by the system: too much bureaucracy, critical over-crowding and stress. University teachers complain that the quality of tuition has to be geared to those students who were least able. The slowest ship determined the speed of the convoy.

It is suggested that at least one gymnasium (roughly the equivalent of the British grammar school) in

every big city should have a special stream for the brightest pupils. At university they should be put in special courses.

Some German conservatives claim that the educational system was making a fetish of egalitarianism. "In the days of the Kaiser", one of them recalled, "the Hamburg senate was proud of the fact that two of the elite schools in the city paid their best teachers far more money than professors at some small universities were paid".

He proposed that elite students should be promoted materially too, as they were in France. They should be given extra grants to cover travelling expenses and the cost of

books and theatre tickets, he said. Herr Peter Glutz, the senator responsible for education in West Berlin, commented that the advocates of an elite were in reality trying to revive a system that had long disappeared. There could be no turning back the clock by granting special privileges to a chosen few.

But he said it was a matter for concern that people were spending too long at university and not finishing courses until the age of 30. This meant an excessive delay for those who wished to do research or to take up an academic career. Much more time must be made available for research.

## Australians hopping mad about cuts

from Geoffrey Maslen

**MELBOURNE**  
Australian academics are hopping mad about the Commonwealth and State governments' cuts in teacher education enrolments and amalgamation of some State colleges.

In Victoria the State Tertiary Coordinating Authority, the post-secondary education commission, has proposed a 20 per cent overall cut in teacher education numbers with colleges of advanced education to bear the brunt. The commission has also proposed the amalgamation of four CAES and an overall reduction in advanced education places.

One of the places affected is Melbourne State College, whose history as a teacher training institution goes back to 1870.

Similar but less drastic moves are likely in other States, where at least one country CAE is threatened with closure. According to four CAEs an overall cut in tertiary education will be reduced to 10 per cent when management study is increasing. Since 70 per cent of teacher trainees in Victoria are women, this will also mean education opportunities for them will be greatly reduced.

Critics of the commission's proposals say the manpower planning is shoddy and based on the most conservative estimates possible of teacher demand with far fewer graduates being produced than will be required.

The planning does not take account of wastage rates among teachers taking leave without pay in the late 1960s this hostility spilled over on to the streets around the university in Operation McGill.

As many as 15,000 demonstrators gathered to revile what had become a potent symbol of everything that the Parti Québécois detested: a bastion, they felt, of the English/Canadian capitalism which had kept the Québécois in a state of economic, political and cultural oppression.

Today the university does appear to have achieved some measure of acceptance among the francophone majority and the government seems to accept that McGill is an essential part of the province's educational provision.

While being anxious to preserve its reputation as an academy of national and international standing McGill has been forced to recognize more explicitly perhaps than before that it must be seen to be making a contribution to provincial needs as well.

University representatives are now quick to point out for example that the university admits a higher proportion of students whose first language is French than ever before (21 per cent) and to draw attention to the fact that all communications between the university and its employees are now conducted in French, and English all dealings with the provincial government are conducted in French.

French is any new programme developments have to be approved by the Council of Ministers and the Ministry of Education; and 50 per cent of university funds are derived from provincial coffers.

It is pertinent to point out here that all these changes have been forced upon the university by the Parti Québécois government and by changing economic realities.

Thus McGill has been required to comply to some degree with the provincial government's directive that all Quebec universities must admit students who have achieved a diploma from a CEGEP (College d'enseignement général et professionnel).

The aim of running a modern university also means that increasing dependence on governmental funds was probably an inevitable fact of life which the university is still learning to live with.

The university is equally keen to draw attention to other ways in which it makes important contributions to the cultural and economic

Simon Midgley looks at Quebec's McGill University, and at the principal who might have opted for a sporting life

## The sporting loss that was a major victory for academe

If David Johnston had joined the Boston Bruins after leaving Harvard, McGill University might be still looking for a new principal. As it is his chance of a trial with this distinguished ice hockey side shipped away when he opted instead for a years study at Cambridge.

Crossing his rubicon early, then David Johnston chose the life of an academic in preference to that of professional sportsman. In the process Canada lost the services of an outstanding athlete but gained an outstanding scholar and able administrator—a trade-off that recently brought dividends when Johnston assumed the headship of one of the country's leading universities—the University of McGill in Montreal, Quebec.

At 39 he is the youngest principal in the country (although, perhaps surprisingly, only the fifth youngest in McGill's 158-year history).

He comes to an institution that enjoys a world-wide scholarly reputation but has always been regarded somewhat ambivalently by its host province.

McGill was originally founded as an Anglo-Scottish university in the heartland of francophone Canada. Clustered in the centre of Montreal on a beautiful campus surrounded by some of the most expensive real estate in town—it has traditionally been viewed with considerable envy and not a little hostility by many among the predominantly French-speaking majority in the province.

Historically they have seen McGill as a bastion of Englishness and a symbol of everything that the Parti Québécois detested: a bastion, they felt, of the English/Canadian capitalism which had kept the Québécois in a state of economic, political and cultural oppression.

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Views of McGill University, and, top right, David Johnston.

life of the province: through its multifarious research endeavours; its vocational and professional programme (law, medicine, engineering, dentistry and architecture for example); and by providing a forum for cultural interchange between students from the two major linguistic and cultural communities.

(It should perhaps be said here that McGill's student body is very heterogeneous: 19 per cent of its population claim neither French nor English as their mother tongue and one in nine of its students come from abroad. These facts reflect the diverse ethnic origins of the Canadian nation and the university's traditional aspirations to being an "international academy".)

Most of the changes that have occurred then have been in response to external prodding rather than to any internal initiatives.

What appears to have happened is that the essence of what the university actually does does not seem to have changed at all that since the days of Operation McGill, francophone life and the nature of its academic offerings are similar to those on offer previously, although the changing significance must have entailed significant changes in teaching practice.

What has changed, however, on the university side is that there is now an acute awareness on the part of many in the academic and administrative community of the need to publicize the ways in which McGill has always contributed to the economic and cultural well-being of Quebec and to be seen to be concerned about issues that affect its host community.

In this sense there has been a fundamental shift in attitude on the part of the university in response

to the radically different political realities of Quebec in the 1970s and 1980s.

A significant degree of rapprochement has therefore already occurred. Attitudes to McGill within the province appear to have changed since the early 1970s and attitudes within McGill towards the province appear to be changing.

The appointment of David Johnston as the new principal should help to speed up this process of increased mutual understanding.

He is keen that McGill should act "as a bridge between the English and French-speaking communities". His obvious concern that the university should be seen to be serving the needs of Quebec did not, however, prevent him from accepting a place on the "no compromises" which coordinated the campaign against a yes vote in the recent referendum on the province's future.

Despite what he describes as an "encouraging" result in the referendum he has no illusions that this will be the end of the debate. (A majority of those who voted favoured separation in a loosely worded motion on the subject.)

The question of the role of French Canadians and the French language will, he believes, continue to be a lively issue during the next decade and McGill, he feels, has a positive role to play in helping to ensure a renewal of the Canadian federation.

In particular the university has, he says, an especial responsibility to be "responsive to the different communities within our province, to make it clear that the ideas that motivate McGill flourish in 1970 really no longer apply in the province".

## The Stirling work to keep an orchestra playing

Juliet Clough on an upturn in the fortunes of the SSO in its bitter struggle for survival

The MacRobert Arts Centre at the University of Stirling has faced a home to the BBC Scottish Symphony Orchestra, should the BBC's axe finally fall, as threatened, on August 31st.

While the orchestra, backed by the Musicians' Union's strike, fights to remain with the BBC, a rescue attempt which if successful would enable the 69-strong orchestra to continue in partly independent existence is being mounted by East Kilbride District Council.

The MacRobert Arts Centre's contribution is the offer of roughly three days, rehearsal time and space, either free of charge or at a very nominal rent, plus storage room for instruments. The offer is probably worth about £100,000 to the orchestra in terms of cancelled running costs saved.

At a meeting arranged for June 11 and attended by representatives of 50 organizations connected with the music and the arts, the campaign leaders hope to be able to form a trust to focus and administer funds contributed to save the SSO. Sir Monty Finlayson, chancellor of Stirling University, has agreed to become a member of the trust.

What we urgently need is more support from major business concerns," says Mr Daniels: "We are looking for something in the region of £1 million." Concrete offers so far include £100,000 worth of performances a year promised by the BBC and £10,000 contributed by the Thomson Foundation to the campaign mounted by Mr Derek Jewell, music critic of *The Sunday Times*.

The SSO meanwhile, still feels that its role is a broadcasting one, says its chairman Mr Alistair Beattie, though this would not be incompatible with doing some outside work. The orchestra, he says, has been much touched by the public interest shown in its fate. "We have never had this stimulation from BBC senior management."

The SSO would be assured of appreciation at Stirling University. Both the university and the community would benefit from having live artists as members of the community, says Mr Alan Marmion, director of the MacRobert Arts Centre. "There would be links with the local education authority; education in the area would also

benefit from the presence of many more specialist teachers; the university's library and recording facilities would improve dramatically. The acquisition of a resident orchestra would receive a particularly warm welcome on the campus. The light of Stirling University's new degree in music. From September, students will be offered two general degree major courses, in the history of music and in musicology. Joint programmes with music and other subjects are also being planned. There is, says Mr Otto Karolyi, head of the music department, a strong possibility that a combined degree in music and education that would be unique in British universities will be available by 1981. The General Teaching Council has already approved the general degree major (music version) as a preliminary to teacher training.

The two degree courses cover the history of music from the late medieval, early renaissance period to the present, together with theoretical studies, aural perception and practical musicianship. The emphasis will be more on the attentive hearing of music rather than reading about it.

The new music units which make up the courses have been carefully designed to fit into the interdisciplinary approach which characterizes Stirling University. Music is already an integral part of the Northern Renaissance course and Mr Karolyi and his colleagues, Mr Hugh Macdonald (the "performing half of the team"), in charge of the university's two music and orchestra courses, also contribute to aspects of education, English, and folklife studies teaching.

They are anxious to establish the teaching of music not in isolation, but as an aspect of European culture. Its history, "Berlioz in the same breath as Delacroix, Goethe's *Walter and Drang*" explains Mr Karolyi. "They hope that this approach will help to attract students from abroad."

An unusual course on the second British renaissance in music, from Elgar and Debussy to Tippett and P. Maxwell Davies, offers much potential for cooperation with the department of English Studies, he continues.

The music courses have, in short, been designed to enable students to gain an insight into what could be described as the history of ideas in sound as well as to further their musicianship. Although chronology is inherent in their structure, there is a flexibility in the order of attack which fits in with the "collage" type of approach that characterizes English and History teaching, among other subjects. "We recommend that students begin with the 20th century," says Mr Karolyi. "There is some merit in starting with the present and then trying to discover what led up to it."

Water music? The possible new home for the SSO at Stirling.

## Medics strike over theses

from A. S. Abraham

**BOMBAY**  
Postgraduate students at one of India's most prestigious medical colleges, the All-India Institute of Medical Sciences (AIIMS) in New Delhi, have been on strike since mid-April in support of their demand for being awarded further degrees in medicine and surgery without having to write a thesis. They believe that a written examination in a number of relevant subjects should be enough for earning a postgraduate qualification.

They argue that attending to patients as part of their practical training takes up so much of their time and energy that they have little of either left to work on a thesis. They also allege that theses are assessed much too cursorily by examiners and that writing one does not equip them to become physicians and surgeons. In other words, it is irrelevant.

While the AIIMS administration is not prepared to do away with the requirement of a thesis, it is willing to consider how to give postgraduate students more time to be able to write one. It is doubtful whether the strikers will settle for such a compromise.

They are getting unexpected support from the highest quarter in

the Indian medical establishment, the Medical Council of India (MCI), which is the profession's law-maker, monitor and judge.

While the MCI is the overall regulatory body for medical education and practice, some institutions, of which the AIIMS is one, are autonomous and can apply their own rules. This is how, the AIIMS strikers have been quick to point out, the Postgraduate Institute (PGI) at Chandigarh (Le Corbusier's city in the Punjab which serves as the joint capital of Punjab and Haryana states) is able to award postgraduate degrees without the beneficiaries having first to submit a thesis.

Reports of the MCI subcommittee's preliminary meetings suggest that the predominant view among its members is that a thesis is necessary. But, since whatever the MCI eventually decides need not apply to the AIIMS in New Delhi or the PGI in Chandigarh, the striking students are not likely to be discouraged by any MCI decision that goes against their case.

● In *THEES* of May 17 it was reported that tribal north-east Indians and Bengali "outsiders" were attacking the use of immigrant labour. The item should have stated that the dispute was between the tribal Indians and Bengalis.



Trainee doctors are arguing that practical work is more relevant to their final qualification than a thesis which is not taken seriously.

## Security agents brought in to stop exam bugging

from Mario Modiano

**ATHENS**  
More than 150,000 Greek teenagers took part this week in the country-wide pre-university examinations under the watchful eye of an army of security agents deployed to avert the leakage of top-secret subjects as happened at Livanos.

The Greek Government is very sensitive about the prestige of these examinations which will gradually replace by 1981 the current system of university entry examinations.

The new system involves nationwide examinations on finishing the second and third (last) years of liceo. The average of the two marks will classify the candidates according to excellence and aptitude, enabling a central computer to select them by discipline, up to the annual university entry quota which is now in the range of 14,000 new students.

When the new system was first applied last year, turned out that the security of the Central Examinations Board of the Ministry

of Education had traded the subjects for the modest sum of £1,000. The examinations were reputed and the offender was given a long prison sentence.

This time the subjects were not given in writing. The board met every morning at 5 am in the conference hall of the Education Ministry. It had been carefully searched by security agents for possible "bugging".

The subjects were selected on the spot, then broadcast over the national radio network to 243 examination centres throughout the country. The centres would later double-check with the board on direct telephone lines.

The public power corporation took special precautions to ensure that the national broadcasting network would be switched automatically to the Ministry of Education during the transmission of the subjects. Battery-powered transistor radios were sent to the centres.

Police bars with army signmen equipped with electronic detectors

patrolled in the vicinity of the examination centres to eliminate the risk of cribbing by wireless. The gates of the centres were closed at 9 am promptly. Police guards would turn back any outsiders.

In all, four schoolchildren were caught in class with transistor radios and were charged. Precautions were also taken to guarantee the impartiality of the two professors who are to scrutinize and mark the examination papers on which the names as well as the first mark concealed under strips of special adhesive tape imported, it was stated, from England.

The Ministry of Education, at the close of the nine-day examinations, expressed its satisfaction about the exemplary manner in which they were conducted. Mr A. Tsiakouras, the Minister of Education, said: "No system for the selection of entrants to universities can be said to be perfect. We believe, however, that the present system is better than anything we have tried before."

## Journalists get thick end of the wedge

from Annelise Hopson

**COPENHAGEN**  
Because of the Government's austerity package all fields within education have to be cut (*THEES* June 5) with the one exception of the Danish High School of Journalism, which is under the Directorate of Higher Education. The school has been granted around £115,000 because of its size and structure. The present budget is around £880,000.

The school near Aarhus, in Jutland, is almost 10 years old and the education is extremely well organized. Twice a year 30 pupils out of about 400 who try to pass the strict admission examination begin the four years of education to qualify as journalists. The drop-out rate is about 10 per cent and the admission exam is made difficult to pass. This is so there is no overflow in the market when the graduates seek employment.

The Rector of the school, Mr Arne Rhye-Ernt, says: "When they qualify the chances of getting a job as a newspaper, with radio, on television or in the public and private sector is 95-100 per cent, which is a high percentage when you consider the unemployment situation within almost all other fields. Furthermore the education is cheap. It costs the Directorate for Higher Education around £1,200 a year for each pupil, and the total is some £4,000 per educated journalist. When pupils leave the school after the first 18 months to work in the field as part of the training they receive a salary of about £5,000 a year. After 18 months they return for another 12 months to the school and finally qualify when the principal paper and the verbal examination of the chosen subject has been passed. Compared with the cost of becoming a doctor or an engineer the cost of qualifying as a journalist is not expensive, says the rector.

## Poll reveals one in four fail to publish

from Martin Roth

**TOKYO**  
The Education Ministry here has declared itself embarrassed by its latest report, which reveals that one out of four academic researchers in Japan published no papers in 1977. In the five years to 1977 the ministry polled all professors and associate professors in technical colleges, junior colleges and research institutions. Over 106,000 replies were received, representing 91 per cent of those surveyed.

The recently published report shows that the average academic published seven papers. The published list with an average 12.5 papers, followed by university professors with 10.7 and with 9.5. Institutions at state-run universities published on average 9 papers, while the figure for those at private universities and colleges was only 5.2.

## Holiday job scheme helps unemployed students

from Lindsay Wright

**WELLINGTON**  
Students at Victoria University, Wellington, New Zealand, have broken new ground by designing and building their own hall of residence, and completing the project in record time.

The Trinity Newman Hall, a joint venture of the Roman Catholic and Anglican churches, opened for the 1980 academic year only 19 weeks after the initial approaches to the University Grants Committee for funds and in the local city council for the permit.

The hall's creation was made possible in part by New Zealand's unemployment problems and the three-year-old government-sponsored special work scheme for students known as the Student Community Service Programme.

Traditionally New Zealand students suggest their governments

handed grants with summer vacation earnings which provide about half their annual incomes, but the growing shortage of vacation employment led the government to introduce the scheme.

Charitable organizations, educational authorities, hospitals, city councils and like organizations can employ students to undertake approved work under the scheme. The wages are paid by the government on materials and supervision are paid by the Department of Labour.

In previous years, halls of residence have undertaken some maintenance work under the scheme, but this year's effort involved students in designing and building a new hall.

The new hall had been a long-term project for the churches, conceived first as a traditional high-rise hall with communal dining and recreation facilities on a site ad-

acent to the university. Changes in student preferences had led to a redesigned scheme for a two-storey complex of self-catering flats, but rapidly rising costs continually impeded the churches.

For the university's school of architecture, the new hall provided a useful practical challenge since, in New Zealand where many houses are built of timber, architects will often be involved in redesigning and renovating existing houses.

Architecture students designed the alterations and renovations, drew up the plans for approval by the local authority, then joined other student workers, under a supervising master builder to implement their plans. Over the four-month summer vacation 40 students worked with specialist sub-contractors on electrical, plumbing and heating work.

The hall is not expensive, says the rector.





David Margolick on the University of Chicago Law School

## Bearers of the burden of proof for legal purism

Nearly five centuries after the founding of the Middle Ages, the University of Chicago Law School is doing its best to keep the spirit of medieval scholasticism alive.

While other American law schools have responded to social change with crowd-pleasing courses, a lessened emphasis on pure scholarship and aggressive affirmative action programmes, this law school in the Windy City has kept its curriculum bare-boned, its faculty publishing incessantly, and its overwhelmingly white student body under the whip.

The pursuit of truth, fealty to tradition and the received wisdom of the past, a firm belief in the uncompromised life of the mind, these are the tenets that make this school, a youngster next to rival institutions at Harvard, Yale, Columbia and Michigan, unique in American legal education. They are goals, at more often associated with, or more often articulated at, European universities; and they are all the more striking for being honoured here, in perhaps the most distinctly "American" of America's large cities.

"We are disinclined to follow fads or fashions," declares Gerhard Casper, the school's new dean and a native of Hamburg, Germany. "We have a tenacious sense that we want to do things right in the long run."

Legal purists call U of C the best law school in the United States, and they may be right. But the institution's administrators are finding that intellectual asceticism has its price. Under pressure from within and without, they are being forced to re-examine some of their most cherished precepts.

Law students here call the school unpleasant. Its very strengths, they say, come at their expense—in a faculty which is often aloof and unavailable, in narrow course selections and points of view, and in an environment critically short of human touches.

Moreover the school, located in the south Chicago neighbourhood of Hyde Park, has come under fire from minorities and women, who claim to be victimised and harassed by the school's administration. And to make matters worse, the American Bar Association has been pressuring all law schools to offer more practice-oriented instruction—an approach to legal education long frowned here.

The school's reputation is an off-putting one, by its own admission. Almost any American law school catalogue, but at the University of Chicago it is taken far more seriously than anywhere else—almost a badge of dishonour.

Although its faculty is the smallest of any major American law school—25 full-time members in the 1975-76 academic year—it is among the most productive as a group, and clearly the most productive per capita. Three highly respected publications, the *Supreme Court Review*, the *Journal of Law and Economics*, and the *Journal of Legal Studies*—are published by the professors here, often grounded in the

law-and-economics perspective of the famous "Chicago School".

Nor is there conventional legal scholarship. Chicagoans pride themselves on the timeless, dispassionate quality of their research, which they say is above the politics and pettiness and pressures of the moment. What may pass as "scholarship" elsewhere, in law review articles or legal treatises or even opinions of the US Supreme Court, is considered value-laden, intellectually dishonest, and self-indulgent here.

Chicago's scholarly ideal flourishes, moreover, in an atmosphere equally old-fashioned. The discourse among faculty members is constant, and often quite adversarial. Manuscripts and ideas are exchanged with frequency and ferocity in corridors and offices, in faculty meetings and workshops, and most distinctively, at the "Quadrangle Club", the Oxfordian facility on the corner of University and 57th Streets where the law faculty reserves a luncheon roundtable thrice weekly.

Topics open to discussion here are never ordained, but one thing is clear: no small talk is tolerated. One leaves observations on last night's baseball game in the cloakroom downstairs or utters them only very quickly and furtively.

Not all the grilling at the Quadrangle Club goes on in the kitchen. Candidates for faculty posts, either recent law school graduates or visitors from other institutions, are invited to dine there, partly to measure whether they have, as Chicago Professor Richard Epstein puts it, "first-class minds". This is not always good-natured give and take, and more than a few teaching prospects have not been invited to stay because, again in Mr Epstein's words, they "flunked lunch".

The incessant intellectual sparring is not to everyone's liking. Some emigres from the school saw it as a form of intellectual bullying that forced them to take unnaturally one-sided positions simply for self-defence. "It was not a place where I could be comfortably confused," says, now at Yale Law School, recalled.

But to those who find it congenial and who pass lunch—the collegiality of the law school—extends far beyond working hours. It pervades their lives, making U of C professors as much an extended family as a law faculty. Except for one non-conformist who lives on Chicago's North Side, all of the school's teachers, residing in Hyde Park, a quaint and historic neighbourhood where two young residents, named Leopold and Loeb, kidnapped the son of a third local family in their famous "perfect crime".

Some Chicago professors have spent most of their lives here and take an almost proprietary interest in the community. But for all of their, surrounded as they are by the black neighbourhoods of Kenwood and Woodlawn, Hyde Park is like a "white island" in a sea of black. The school's "black studies" programme, a stamp of native and where they have banded together,

worked together, parted together, and raised families together.

All in all, the community helps make a teaching position at Chicago an experience without equal elsewhere. Or as Paul Bator, a professor at the Harvard Law School who spent one year as a visitor here, put it: "Teaching at the Harvard Law School seems to me a little like being allowed to sing Wagner at the Metropolitan Opera House in New York; but teaching law at Chicago is like singing Wagner at Bayreuth."

To some degree, students suffer at Chicago for the same reason faculty members sometimes do: the unashamed rigour of the place.

To the extent that our task is considered to be imparting a first-rate legal education—which we are doing quite well to look at our placement record—and maintaining scholarship, it is hard to maintain the atmosphere of a warm, intimate college," says Dean Casper. And he is right about the school's placement record, for graduates of the school regularly win jobs at the most prestigious law offices in New York, Washington, Los Angeles and other American cities, as well as Chicago.

Indeed, there is an almost Franciscan spirit of abstinence to the Laird Ball Law Quadrangle, the Eero Saarinen-designed building that has housed the law school since 1959. The structure, like the institution within, is intellectually impeccable, its glass facade designed to reflect the gothic buildings of the campus and thereby to capture the symbiotic ties between the law and its sister disciplines. But on the inside, the building is spartan—its colours gray, its lounge areas unconvivial, its surfaces severe. Few students frequent the premises, giving the school the appearance of an institution perpetually between sessions. Even the bulletin boards are uncluttered.

This demoralised state of affairs reflects a widely-held belief that Chicago's greatest strengths come at the expense of its students. The most among its critics, to those enrolled in the school, is its vaunted faculty intimacy and productivity.

Chicago's old-fashioned ways also extend to a nineteenth-century view of students, one which, while widely-held in European universities, is regarded as arrogant and anti-democratic here.

There is a deeply-rooted sense of courtesy propriety in student-teacher relationships among the faculty, which they feel would just be "inappropriate and dangerous" and contrary to the educational aims of the institution to give up. "I think of the student body as being well below them in terms of knowledge and capacity. I can't think of a single faculty member who had a friendship with a student outside the school."

The saying grace of the Chicago experience to many here is the Mandel Legal Aid Clinic, whose offices are tucked away in the school's basement. Given U of C's well-documented distaste for anything smacking of practicality or the "trade-school" approach to legal education, the mere existence of a clinical programme here—where students work

on a wide variety of actual cases involving indigent clients—is something of a surprise, to say nothing of one established more than 20 years ago. Here as in its interdisciplinary approach to law, Chicago has been more precocious than its competitors.

The history of the University of Chicago Law School since 1902, when it was built with the largesse of John D. Rockefeller, has been one of episodic rather than continuous greatness. Periods of pre-eminence were regularly followed by eclipse, whereupon an influential dean would rescue the school from regression to the mean if not outright extinction.

After the departure of Edward H. Levi, a giant in the history of the school and a former United States Attorney General under President Gerald R. Ford, the school began another era of turbulence and drift—the victim of attrition, leadership problems and its own brittle ideology. The school, already weakened by the Vietnam-era travails that wracked Chicago more seriously than many other American campuses, lost its intellectual balance and some of its heart, according to students of the place, becoming more cranky and conservative than ever.

Key faculty members departed or died, and the institution seemed incapable of replenishing itself. Hyde Park's high crime rate and housing costs, the city's doleful squalor, the school's increasingly sybaritic, Sunbelt-style culture, competition with other top schools for prospective students, and the reluctance of political liberals to set foot on U of C's conservative turf—all of these factors kept outside replacements from coming. With the school hiring more and more of its own graduates instead of its fabled faculty cross-pollination, it came to resemble inbreeding instead.

"The school became too homogeneous. It tended to push too hard on a single model of excellence," said the dean of another major law school.

As the school grappled with these internal problems, it faced another set of pressures, originating both on and off the Hyde Park campus. They were the pressures of affirmative action—and, specifically, charges that the institution was both racist and sexist in its hiring practices and admissions policy.

When black activism and the women's movement reached U of C Law School in the early 1970s, the institution's record was spotty. Many years earlier there had been a woman and a black man on its faculty, but both were long-gone and had never been replaced. Then again, the performance of other law schools in the United States had not been entirely exemplary either.

But while Harvard, Yale, Stanford, Michigan and the rest adjusted to these new demands, Chicago seemed to dig in its heels. Students and former faculty members alike claim the school was basically "claire" to affirmative action and preferential hiring, for reasons rooted both in logic and experience. They point out that for the University of Chicago as a whole, which prides itself on having main-

Far left, Professors Richard Epstein and Bernard Meiser either side of Gerhard Casper, dean of the Law School. Above, the school itself.

tained its academic independence while others were caving in to various pressures, such outside interference is invidiously seen as the direct of threats. Just as the university stood firm against the America First isolationism of the early 1940s, the McCarthyite rebuilding a decade later and the Vietnam protesters after that, the law school has resisted efforts to compromise its meritocratic creed.

A subtle but pervasive atmosphere of racism characterises the law school, a group of black students charged in an open letter to the school's watchdog visiting committee last fall, citing ineffectual recruitment, discriminatory treatment in certain classes and "us against them" mentality in racial matters exacerbated by U of C's proximity to Chicago's largest black communities.

Dean Casper says students who allege that Chicago professors discriminate against blacks are "quite paranoid." Both he and the director acknowledge concern over the low enrolment of minorities at the school, but argue that the problem stems not from racism but from concern for the minority students themselves—particularly over whether some borderline applicants could survive the school's demanding scholarly regimen. To let more blacks in, they say, would be doing them a favour under such conditions.

Both men equate what pressed on whether Chicago's meritocratic tradition, inherently discriminatory against minority applicants. "It may have that effect," Dean Casper concedes. He admits, however, at charges that Chicago is a racist institution.

"Our faculty members aren't the ones who emigrated to the suburbs. Our faculty has continued in the next door to minorities, and I mean next door," he said.

The choice of Mr Casper for the deanship would strike all but U of C members as an odd one. After all, he is not a member of any state bar association, and wasn't even a naturalized American citizen at the time of his appointment. But even beyond its early days, foreign accents, particularly German ones, have never been unfamiliar here.

The University was a haven for Jewish refugees in the 1930s, and the law school has always had at least a couple of academics who could take discussion in their own language. The greatest danger at hand, he seems to suggest, lies not with affirmative action or hiring difficulties, but with the school's own history of sloppy scholarship or the private educational institutions to which it comes from.

It comes from the efforts of certain "elite" faculties to include elements of the bar, particularly "return us to the status of law schools" by requiring that all schools in the country to include law courses in their curriculum. "Such a move, however it might be over elsewhere, would be an especially idiotic here, for it would force the school to abandon its cherished academic standards and independence. We're seeing a major effort to force conformity, put us all in the same mold. Law school should be free to set its own objectives."

## Paul Flather on two decades of work by the Society for the Study of Labour History

### A look over the left shoulder

The work of a scholar is never just that information which he sifted, ideas selected, theories developed (and then rethought) but it is often difficult even to have access to information. It is all to the credit of the Society for the Study of Labour History, which celebrated its first 20 years of work at a conference in London last month, that it has never shied from dealing with the problems of being an historian as well as the problems of history.

The society has led a stern campaign against the Government's restrictions on public records, the raw material of its work submitting evidence to Sir Duncan Wilson's committee on public records. It has worked hard to build a comprehensive bibliography of Labour history, and it has put in tremendous efforts to support museums and archives of Labour history.

The society was founded in 1960, much in the same mainstream that spawned the so-called New Left. There had been an active Labour history group inside the Communist Party. But the society, with many former party members who left in 1956, set out to become much more politically independent.

Mr John Halstead, a lecturer at Sheffield University's extra-mural department and co-editor of the society's bulletin, identified the society's main aims in the society's birth: it was very much a northern affair, it had strong connections with adult education, and still does; and there was always a "broad church" of opinion.

Many of the original signatories were active politically. The group included Sidney Pollard, professor of economic history at Sheffield University and the current president; John Saville; Asa Briggs, now Lord Briggs; Royden Harrison; E. P. Thompson; J. F. C. Harrison; and Eric Hobsbawm. Much of the early groundwork for the society was done by Lance Beales from the London School of Economics, and G. D. H. Cole, who died before the society was set up.

The earliest debate in the society was about the nature of the subject to be studied, and after 20 years it is clear that the debate still lives. Early talks focused on whether Labour history was just another academic category, comparable, say, to religious history or education

history, or whether it involved a debate about some programme for transforming society, rewriting conventional history of the middle classes as the history of the Labour movement.

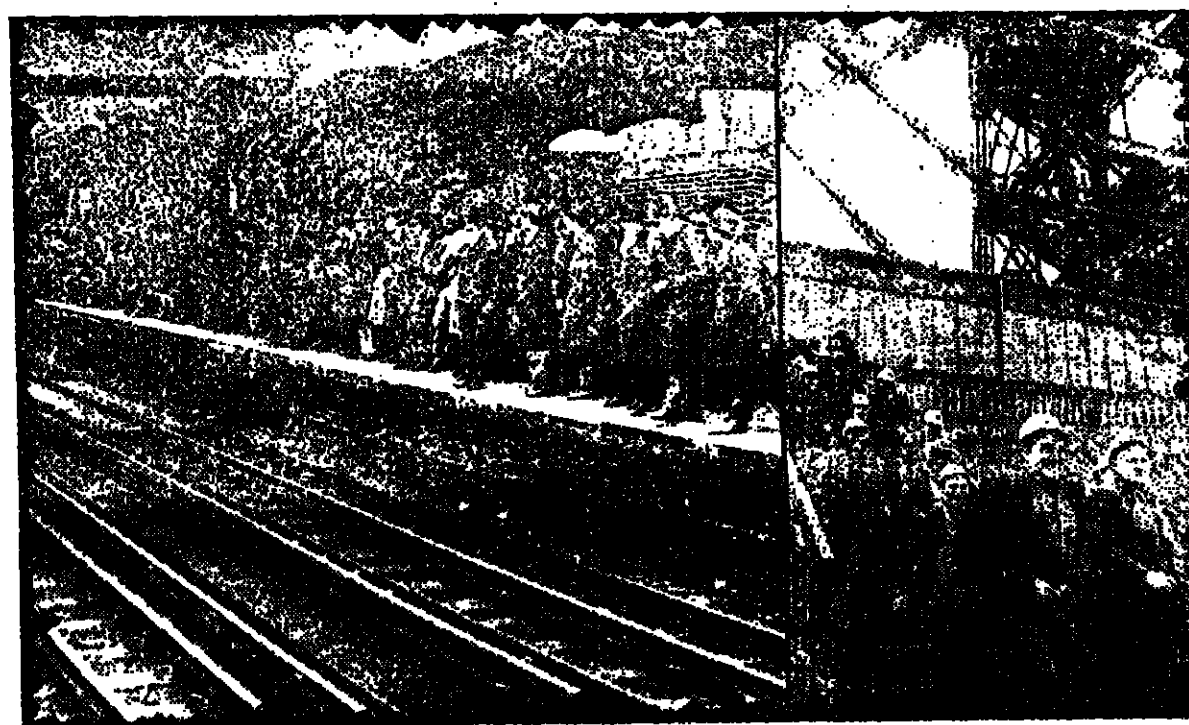
E. P. Thompson raised his banner at the last conference against academicism. He appealed to fellow Labour historians not to duck the major issues of the day. He appealed to them not to hide from the "sensitive issues" which societies try to avoid. For Labour historians these were the crucial differences between social democrats and communists.

His colours were taken up at another conference session by Mr Pat Seyd, lecturer in politics at Sheffield University, who attacked the approach of many of the papers published in the society's bulletin: "I am concerned very much with the present, and not just looking back at the origins of society. That was the real *raison d'être* of this society," he said.

He cited two areas where he thought Labour historians were going wrong. First, the method was too much emphasis on national studies of, for example, the Labour Party. "There are impressive studies of conferences, executive committees, but the party is made of members and work has to be done on how local members make decisions," he said.

Then the period was wrong. There was great interest in the nineteenth century, the romantic age of working-class history, but since 1945, not a thorough study of the Communist Party, not a study of the 1968-69 confrontation on trade union reform. The paucity of material post-1945 is a sorry state, he said, and he appealed for work on Trotskyism and on the Confederation of British Industry, both sides of the argument.

Many of the society's members would disagree with these views precisely because they see them as primarily researching history, rather than history needs time to be appraised. The reason for dwelling on this aspect of the conference is because it illustrates the special flavour of the society, both researching and discussing the aspects of their lives. Few if any members would consider that Labour history can be studied in isolation from the study of other



Left, a platform at Piddington during the General Strike of 1926, and right, the miners at the end of their 1974 strike.

reflective history and directive history.

There were appeals from many quarters for Labour history to be written in simpler language. Mr Geoff Brown, from Nottingham University's Extra-Mural Department, said no one wanted to approach every article as if it was in the *New Left Review* of the time, a definite joke referring to the complexity of most articles in that publication.

Mr Edmund Frow, with his wife Ruth, has amassed a remarkable collection of books and documents at his home in Manchester, added that "without being too critical" of academic work because it has made a great contribution, he wanted to make a special plea for people to get away from "foreign concepts".

The society has come a long way since its first conference when Asa Briggs simply read out one paper in rather reverent silence. Mr Bob Morris had a panel of six to contend with as soon as he had finished his paper on *Whatever Happened to the Working Class, 1750-1950*. The society now has 1,000 members, including nearly every leading Labour historian in the country, and members from 32 other countries.

Labour history is taken in a very wide sense: it is concerned with both organized and non-organized workers and their families, with their access to public records, the criteria for withholding and weeding of records. Diligent work showed the files had been "removed". They were later

classes or strata in society; and similarly Labour history and social history are taken as closely related.

The society's bulletin, published twice a year, acts as a forum for debate. The most recent issue has items on radical politics on Tyneside 1850-74, Communist Party Oral History, a bibliographical essay on crime, criminal justice and authority, and the French Coal Miners' Strike in the Loire, 1844, plus numerous comments and short notices.

The bulletin has a very strict "tool-of-the-trade" philosophy, which means all contributions should be of direct use to Labour historians, for publishing new research, for international exchanges, for reports on events and for debate. Under scrutiny at present is the notion of a Labour aristocracy. The debate rages, between those who argue that the term is not amenable to definition; those who say it explains divisions in the nineteenth-century working-class, some of whom acquired certain privileges based on their skills and membership of guilds; others who say it explains the peculiar reformist nature of the British working class.

The other side of the society's concern is the raw material of history. The mystery surrounding three "missing" police files relating to the Hunger Marches of 1934 and 1936 led the society to press for reforms in government restrictions on access to public records, the criteria for withholding and weeding of records. Diligent work showed the files had been "removed". They were later

returned but not before the matter had been discussed in the House of Commons. The society says there is still a disturbing tendency for files from peculiarly "sensitive areas" to go missing. "Just how improbable—statistically speaking—was the loss of Zinoviev letter?" it asks.

At the conference E. P. Thompson said: "We must prise open the material we need as historians." It is a campaign the society is keen to fight. The latest bulletin carries an item about the *Infinity Rule*, which covers the release, or non-release, of certain highly sensitive material. It supersedes the more generally known 30-year and 100-year rules.

Another aspect of work is the build-up of archive material ranging from support for the now established National Museum of Labour History, in the East End of London, under curator Mr Terry McCarthy, to the Abbeydale Industrial Hamlet in Sheffield, or a proposed new banner library in Bristol. Most important is the modern records centre at Warwick University.

The next conference is to be more precisely linked to current issues and will concern the State, public order and civil liberties. Professor Pollard sees the moves between the more reflecting approach and the more directing approach as beneficial to the society.

"Of course there has never been any split. We have done tremendously well in our first 20 years. We are all still full of élan, and we shall go on like that," he said.

## Peter Scott concludes his series of articles on higher education in China with a visit to Shanghai

### Inside the spare-time training ground of the modernizations

Shanghai's "spare-time" University of Technology proudly claims it is training the technocrats for China's "four modernizations", which with emphasis on science and technology are the ruling orthodoxy of Chairman Hua's China.

But it is predominantly a workers' university, which makes it far distinct from that of China's more conventional universities where the children of party cadres, intellectuals, and professional workers often seem to predominate.

This is so for several reasons: First, Shanghai is one of China's most "specialized" cities with a high concentration of technical workers. Here the Chinese Communist Party was founded. Secondly, 3,000 of the university's 5,287 students study "spare time" (the rough equivalent of "time in England"), and a further 1,200 part-time students (which they are released to study for four of the six working days a week). Thirdly, only 600 are leavers.

The President said students were chosen from among the most expert and travel daily to the campus, which is more feasible in Shanghai than in other cities. The university has 600 of the 2,600 students who started last autumn were school-leavers.

The average age of the students is about 30 and all live at home and travel daily to the campus, which is more feasible in Shanghai than in other cities. The university has 600 of the 2,600 students who started last autumn were school-leavers.

Both full-time and part-time students take a four-year course. But the latter miss out subjects like political education and sport. The President explained that the part-time students were more likely to fail their examination or to drop out, as the subjects they were studying were usually directly relevant to their work in the factory their motivation was high.

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The President said students were chosen from among the most expert and travel daily to the campus, which is more feasible in Shanghai than in other cities. The university has 600 of the 2,600 students who started last autumn were school-leavers.

have gone into technical or managerial jobs. The university had recently carried out a survey of all its past graduates and found nearly all were playing an important role in China's modernization.

Students came to the "spare-time" university partly through personal application, partly by the recommendation of their factory and the management of their firm. They have to pass a stiff entrance examination like all Chinese students even though some may have had little or no interrupted secondary education. Competition is fierce.

Most full-time and part-time students take a full undergraduate course but a few of the regular students and most of the "spare-time" students take a normally of part-time three evenings, two half days, or one full day a week, or taking specialist courses. Ten per cent only of the students are women.

The "spare-time" university is not without its problems. Though it divides the division into 10 sites created difficulties, and he complained about a lack of good scientific equipment. The part-time students are fighting for an

extension of their course to five years. Already some concession to their viewpoint has been made. Before and during the Cultural Revolution they were only allowed three days' release instead of four.

The university's independent future is at present in doubt. There have been discussions about merging it with Shanghai's television and radio university, one of China's 20 "open universities", and the city's College of Finance and Economics runs similar part-time courses in the commercial field.

The television and radio university was also set up in 1960. It closed in 1966 with the onset of the Cultural Revolution and reopened in 1978. Mr Lu Zhao, its registrar, explained that it offered six courses to its 11,000 students—medical (2,000 students), which included in-service courses for doctors and other health workers; mathematics, chemistry and physics (2,300 students) mainly secondary school teachers who receive two or three half days off a week to study; mechanical engineering and electronics (4,300 students) mainly factory workers.

Unlike Britain's Open University, students in Shanghai are organized

into classes to watch television. There is also a lot of group activity and tutorials, and they also work by themselves.

The television programmes, of course, can be seen by anyone with a television, and Mr Lu estimates that about 100,000 watch regularly. But, he added, "a student is a student".

Both the "spare-time" university and the TV and Radio University are utilitarian institutions. As Mr Lu put it: "A characteristic of this university is to cause more about putting things into practice rather than dealing with theory." Their general rule in providing further education and training for workers was to be "practical, efficient, and hard-working is obvious. They also provide a "second chance" in a system of higher education in which such chances are rare, and a great deal—perhaps too much—depends on academic performance in the secondary schools.

Finally the "spare-time" university has a special role to play in repairing the damage of the Cultural Revolution. An educational generation was almost lost in the turmoil of the years between 1966 and 1976. It can help in a small way to retrieve it.



# Are we manufacturing an engineers' crisis?

Do we face a national shortage of engineers which threatens to debilitate industry? Or are such statements to be discounted as special pleading from industrial and professional vested interests? Is there indeed, as has recently been asserted, already a surplus supply of engineers for the jobs available? The answers to these questions are clearly of keen interest to teachers and parents advising young people on their future careers, and to Government Ministers under pressure to direct additional resources into encouraging and related studies. Yet, having spent a large part of the past three years embroiled in this debate, I have become less and less certain that these are in fact the most fruitful questions for us to be addressing. We should, I suggest, be asking: what should be the role of engineers in the economy of the late twentieth century? Do we have the numbers and types of engineers we need to fill that role? Are we making the best use of them? What should we be doing now to ensure that we will have the types and quality of engineers we will require in five, 10 and 20 years' time?

Industrialists begin from a judgment about the current and future requirements of industry and the economy at large for the capabilities which engineers can provide—in particular the capability to exploit for commercial or economic benefits developments in technology, and (alongside scientists) to produce those developments. These requirements, it is argued, are likely to grow substantially over coming decades, not just in the industries in which engineers have traditionally been employed but in a growing range of other sectors, many of them not conceived a decade or two ago and many more still in coming. Since many employers are already experiencing a shortage of engineers, the prospect is painted of a worsening shortfall as more employers recognize their need for an enhanced engineering capability and as the rate of demand for specific vacancies grows.

Economists, on the other hand, dismiss such arguments as woolly-minded and misconceived. The question should be appraised, they argue, against the indicators provided by the objective workings of the labour market in which competitive forces allocate resources (in this case engineers) to their most remunerative and hence most appropriate uses. If, as has often been suggested, a factor in the low numbers and poor calibre of people entering engineering has been the relatively poor salaries offered, this would be interpreted by the economists as *prima facie* evidence that employers had no trouble recruiting all the engineers they required and therefore that the market was up the price they were prepared to pay for them. The fact that over the past two or three years both the relative salaries of engineers and the numbers entering engineering courses in universities and polytechnics have been sharply cited as further evidence that market forces can be relied upon to balance employers' demand and the supply of new recruits, it can be asked if these market forces are generating the demand is the not evidence that there has been a shortage?; and in view of the rapidly changing and broadening fields of engineering activity, of what evidence can the demand seriously be considered to have been satisfied or likely to decline?

One has only to talk with a number of employers to discover the limitations of analysing the market for engineers in the same way that one might assess the market for say, machine tools. It is just not the same. Many employers are now convinced that there is a chronic shortage of engineers, but their statements have different meanings for each of them. In many instances the "shortage" proves to be of people with particular skills, especially in electronics and computer applications, or of engineers with the personal qualities for senior management positions, or of the type of practically oriented engineer formerly produced through the old "part-time route" to qualification. In other cases it is clear that the employer simply does not understand the market and is asking for a new graduate to do the work of a qualified man from Day One or complains that he cannot recruit graduates when he is offering 60 per cent or less of the



**Sir Monty Finniston argues that employers must put their money where their mouths are if their wish not to see our engineering schools turning out recruits for foreign rivals is to be taken seriously**

current going rate. The economists can give us useful information about aggregates and averages (although the datedness and unreliability of the available data limit the confidence we can place even on these figures), but they can provide little insight into variations between employers' requirements or into the effectiveness with which engineers are employed, or what kinds of engineers and how many will be required to develop the new technologies, new products and new systems awaiting industrial exploitation.

**Young people make their career choices on an assessment of a whole package of perceived attractions**

There are without doubt serious shortages of engineers in some parts of industry. But it is not possible to generalize to what extent these reflect a physical shortage of numbers and to what extent they reflect upon the particular mixes of skill and aptitudes required, the rewards and prospects offered, and the use employers are making of the engineers already employed. Neither is it sensible to assume that the price mechanism will respond to the supply of engineers by changing demands. The economists argue that the career choices of students will be made on a more or less rational calculation of the return they can expect for their personal investment of time and foregone earnings in order to obtain particular qualifications, and that that return will be assessed against earnings differentials. Yet a number of studies have shown that young people make their career choices on an assessment of a whole package of perceived attractions, which includes: job satisfaction, career prospects, status and other

intrinsic rewards as well as expected earnings. It is this whole package which employers must "bid" if they are seeking to attract more or better people into engineering.

Looking ahead, the economists argue that future requirements for engineers should be assessed by looking at past patterns of the numbers of engineers employed in relation to levels of national R&D spending and/or levels of industrial output. Since most current forecasts predict very low or even negative growth in both R&D and output, the economists are sceptical of the industrialists' claims that industry will be seeking to recruit many more engineers than it does currently. This scepticism is based on an assumption that engineers will in future be employed in the same jobs and in the same numbers relative to the level of activity as they were 10 and 15 years ago. The assumption does not square with the clear trend for a greater concentration of professional engineering skills in the traditional areas of production and design, nor with the new demands for engineers to work in hitherto non-engineering activities, including many outside manufacturing altogether. What is not sufficiently recognized is that engineering is a creative discipline and education in science, technology and engineering are the equivalent at least of the traditional Greats on PPE, and in many ways more appropriate to the culture of today's society and the development of the national economy. Tomorrow's engineers are as likely to work for retail stores as for car manufacturers, as likely to work in marketing or finance as in production or design.

The different approaches of economists and of industrialists, both of which have much to offer, neither is swallowed whole. The industrialists rightly emphasize that the starting point of any analysis must be with the nation's requirements for the skills and capabilities which engineers can contribute, and show that requirement growing in a number of directions. The economists rightly remind us that it is folly for Government or the education system to seek to stimulate an increased supply of engineers if the needs of national needs in these fields are not acknowledged by em-

ployers and reflected in appropriately rewarded vacancies and opportunities.

The limitation of both these approaches is that they confine themselves to looking at the market for engineers from the outside, while the important things to look at concern the processes going on within that market. In particular, we should be looking at the way industry recognizes and assesses its requirements for engineers, how those requirements are translated into demands (for salaries and incentives), how those demands are transmitted to the potential supply (to students in schools and higher education), and the responsiveness of that supply to changes in employers' demands.

**A growing number of employers are offering attractive sponsorships to encourage students into engineering studies**

If we do this we will see that none of these processes works very well and that the working of the system or market as a whole is hindered by institutional rigidities and the development of a self-perpetuating and sometimes difficult to remove, but the latter is quite unjustifiable. The aim of government and, hopefully, in due course of the Engineering Authority and all concerned with industry should be to seek ways of making the market for engineers work better by addressing the rigidities and ignorance of those operating it rather than to make assumptions about the "right" numbers required and then to try to produce recruits and stimulate vacancies for those numbers.

The failure of the latter approach, which we called "supply push", was demonstrated by the expansion of higher education places in engineering and technology in the late 1960s in response to the greater

national need for engineers identified by Zuckerman, Jackson, and others. As we all now know the main beneficiaries of this expansion were overseas students, and the number of home students following engineering courses grew relatively little. The main growth in student numbers over the past 10 years has been in the arts and social sciences, while engineering studies have grown much more slowly—indeed the student population as a whole.

What really determines the relative numbers following different courses of study is not extraneous and appeals to the national interest, but the intrinsic attractions of the eyes of the young people concerned. It seems to me that we will only get a higher proportion of young people seeking to become engineers if and when they come to see an engineering formation as the route to a number of worthwhile and rewarding careers. This is the situation which our competitors in Germany, France, the United States and Japan have long enjoyed, but one which we are still far from achieving here.

While my Committee of Inquiry therefore saw limitations to the power of "supply push" policies, we by no means discarded them. We were particularly anxious: (a) that school pupils, and in particular girls, were encouraged to read the option to pursue an engineering course until they were old enough to reach well-informed and reasoned judgments about their future careers; and (b) that pupils were properly informed of the challenges and attraction of an engineering formation and of the career opportunities which it opens up.

I would stress that we are not proposing a distortion of our whole school curriculum in favour of potential engineers. A proper study of mathematics and science and a proper understanding of the role of technology and industry in the world in which we live must form an essential component of every future citizen's education.

Changes of this kind can do no more than encourage an increased potential supply of engineers.

It is for reasons of this kind that I am firmly with employers. To quote from our report: "Employers must recognize and act upon the fact that the only sure way to attract able young people into an engineering career is to offer them a more attractive in terms of the likely rewards, job interest and career prospects than the alternatives."

The prospects and rewards for good young engineers are already very attractive, and are improving. Graduate engineers entering industry this summer can look for starting salaries of up to £5,000, a premium of some 10 per cent over the non-engineering recession facing universities (despite a growing number of employers offering attractive sponsorships to encourage students into engineering studies). There are encouraging signs, and they are encouraging signs, that the young engineers directly involved in scientific and technical work (often at technician level) and do not take part in their subsequent development to ensure that each individual is being used to the full.

Many engineering professors are going to jobs overseas where more opportunities are available. As we say in our report, all necessary must review and if necessary prove the opportunities they offer for employment if they really mean what they say about wanting more and better recruits and if they do engineering work, our schools of engineering should be able to attract talent for their overseas competitors.

It has not been attempted to answer the question of surplus or shortage of engineers or the view of the industrialists. The market is a better mechanism than Whitehall's national planning and political lobby groups. The market will only work effectively when all those acting within it are well-informed and flexible to changes in the market environment. Few, I think, would argue that these conditions are anywhere near satisfied at present.

The author was chairman of the recent inquiry into the training and certification of engineers.

# Black power or just another brick in the wall

I suppose that during the next five years we will have other "riots" in Britain—in Leamington Spa, perhaps, or Northampton or Stoke. If there are, certain things are predictable about the way in which the events will be framed for hanging in the picture gallery of public memory. As the riots subside, those in the higher reaches of the local and national race relations establishment will say how ironic it is that it is in these areas, which are known to have good community relations programmes that rioting should break out. The local chief constable will tell us about the youth clubs that his constables can find spare time and that there are other men on the beat who have learnt to speak Punjabi and have excellent relations with the Sikhs.

Equally predictable will be the radical response. The young community worker in the action and advice centre will say: "Everyone who works here knows that these black kids suffer from multiple deprivation." "Living in poor housing, they get shunted into the bottom streams at school and leave school and are unemployed, to stand on street corners and be harassed by the police under the 'sus' laws. What is wanted, therefore, is a massive increase in expenditure under things like the Inner City Programme to overcome deprivation, and, especially, perhaps, deprivation amongst ethnic minorities."

All of these things will be said. More and more policemen will work in youth clubs or go to Punjabi classes. More and more of the money which is doled out through Section 11 of the Race Act, through the urban programme and the Inner City Partnerships will be targeted towards the blacks. And in the few years after that there will be "riots" in Croydon or Leicester or Halifax.

In fact there is something missing in all these "solutions", and even those who propose them know that it is missing. They see the problem as an intractable one and their proposals for its solution are little more than ritual incantations to that intractability. It is not too much to say that all of these policies, across a wide range of symptoms of the underlying social and political tensions, as much indeed as the "riots" themselves. The phenomenon with which we have to deal is not that of riots but of a society in which the police establish a quasi permanent state of emergency in which the police are called for more resources. The basic problem is a problem of legitimacy in a society riven with class and race divisions.

A good starting point for understanding the society now before us is to look at the riots, not in St Pauls, but in Neasden. (Warning—I am not going on to say that the problems of the young blacks in Bristol are only those of deprived working class youth.) I don't actually know Neasden or the particular "skin heads", but I do know the young man who travels to see Tottenham Hotspur at their away matches, and if they are anything to go by, he will understand the fear and the contempt of Neasden in their local club, Tottenham Hotspur. The Tottenham Hotspur fans were nicely racially integrated. The one who kicked your seat and kicks you in the back of the head is a white skinhead. He is the one who directs you down the wrong street as you close him in black.

Now the police don't actually do a very good job at football matches. Often they are the wrong place at the wrong time, they get into the wrong conflicts and mobilizing quite harmless young men against them. I imagine therefore that the police, in having down the street shepherd and escorted by half a million pounds worth of police, that may well seem to the Asian the time to act against the Front of course, but, needs to be against the police. This is not to say, however, that the police are to join in their biggest "riot" so far, at Southall.

ably try according to their lights to do their job as efficiently as possible. What I am saying is that the police are left to pick up the pieces when everyone else has failed. It makes no kind of sense therefore to increase the riot squads and cut educational expenditure to a point at which communication ceases between teachers and their society on the one hand and the swelling ranks of Pink Floyd's army on the other. Less educational expenditure will lead to a demand for more police, but the very existence of that demand is a sign that civilized relations between government and governed have broken down.

The problem which is reflected in our school situation is not solely an educational problem or a cultural problem. It is a problem of legitimacy. Fashion is the engine which spreads the superficial style of disaffection. The young man who has failed to take his working class young seriously. Underneath the teenage culture styles of mod and rocker, skinhead and punk, there is a structural break in society itself, and one does not have to look to the young thus who disbelieve the order of one's life to say that there is something very nasty about the society which produces them.

Of course, it is not my task here to deal with the internal problems of British society of the generation gap, of "juvenile delinquency or vandalism and thuggery." I only wish to point out that, even if one confines oneself to internal problems, one sees that this is a society which is coming apart by failing to win the loyalty and identification of large numbers of working-class youth. If this is the case, how little chance is there realistically speaking of achieving that objective in the case of the three quarters of a million or so, of the children of West Indian and Asian immigrants.

The immigrant generation, of course, presents no problem. They were asked to do what Ken Pryce in his study of St Pauls said some West Indians called "shit-work". So long as they did this they were, if not welcome, at least acceptable. But there was never any commitment to offering even the same job to their children, let alone allowing them to advance up the social ladder. Whatever select committees and community relations councils might say, there is a very strong likelihood that when an average teacher is confronted with a black pupil or an average employer with a black man for a job, he will be prejudiced, in the quite literal sense of having prejudged the case. This may mean a worse deal for the black. Sometimes it may mean that the teacher or employer regards himself as particularly virtuous for having given the black youngster a job, but will be equally prejudiced none the less.

The children of South Asian immigrants have on the whole taken this situation in their stride. They and their ancestors have watched the British at work for several hundred years and they have become used to coping with what must seem to them the quite comic antics of the master race. They know well enough that they can cope, despite the discrimination, and that their social organization and culture will even give them an additional advantage in competing with whites. There is no need to riot to prove this.

Working at business, getting into unions and Labour parties and prising their children into education, they are the exception, not the rule. Racism by whites is basically unwelcome. The one thing that needs militant action is the fight against racist attacks. When a community of Frontmen comes marching down the street shepherd and escorted by half a million pounds worth of police, that may well seem to the Asian the time to act against the Front of course, but, needs to be against the police. This is not to say, however, that the police are to join in their biggest "riot" so far, at Southall.



The breakdown of race relations in Britain. Top: Police struggle with Anti-Nazi League demonstrators. Left: Wrecked Bristol foodstore. Top right: Southall trials protestor. Bottom right: Out of work and on the streets.

# Professor John Rex reflects on racial tensions in Britain after the disturbances in St Paul's, Bristol

West Indian descended children however face more radical political and cultural difficulties than Asian. Their ancestors were enslaved and they and their parents and grandparents were brought up in the slave masters' culture. They believe, and in 90 per cent of cases they are right to believe, that teachers are as much as inferior beings as most teachers. This negative identity which comes from slavery is compounded by the negative identity so firmly fixed on them by Powellism.

Racism in Britain is widely regarded by middle-class liberals as a working-class phenomenon. To some extent they are right. There are many working-class people who feel that Alf Garnett was only articulating what they believed at the time. How could it be otherwise in a nation which for generations has trained its working class to take part in military imperialist adventures? There is a more immediate response than this. If one finds a fellow worker or a fellow student sharing the experience of one's own exploitation and oppression, he may be accepted as a comrade, or less so, if one should therefore some integration of black youth into the working class.

I have spoken of working class alienation in the schools. It comes in varying degrees. There are some who shave their heads or dye them two-tone, wear earrings and are like. They make their problem obvious. But there are all those others who used to be dumped in secondary modern schools and now which education opened up in the more comprehensive. For them, unfortunately the message is that while many are called few are chosen. For them the anti-academic world

This anti-academic society and culture does in fact offer its own socialization and education, its own occupational pathways. To live in and through that culture to go on to a working-class job, to be protected by the Labour Party and the trades unions rather than seeking security through property—all this is one possible way of being English. If this is irremediably a society class culture, this other of the national whole. It may be tightly policed at Grunwick or Old Trafford, but it is allowed to exist and has a certain dignity.

Considerable numbers of black men and women are in fact becoming British by entering this culture, Association football, which is the great working-class art form, has already found places for skilled black practitioners. In demonstration of their skills along with largely undereducated Englishmen, Scotsmen or Irishmen, they lay claim to participation in a central working-class institution. This participation may be symbolic of a wider social acceptance. One of the great things about the "winter of discontent" was that the NUPE struck, with the backing of the TUC, on behalf of the lower paid, without stopping to notice that many of the lower paid were black.

To say that this sort of acceptance into the working class is sometimes available to blacks is by no means to say that it is universally available. The fact is that there are still many white workers who shun their black colleagues, that most Labour parties would run a mile if it was suggested that they adopted a black candidate even in a largely black area, and that many young blacks are not at all at home in white working-class culture, either in its main-

stream or deviant forms. For those who have this experience, Rastafarianism with its emphasis on Babylon and the 400 years of slavery speaks more accurately to their condition.

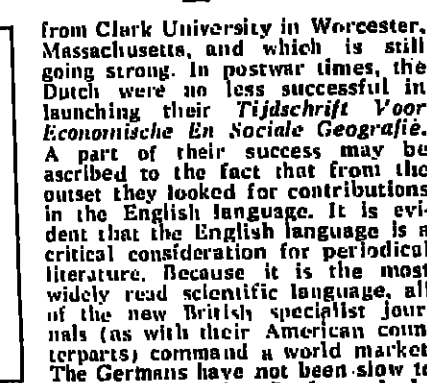
If one looks at black youth in the schools, outside the schools and after leaving school, the one thing which stands out as an empirical social fact is the growth not merely of Rastafarianism but of a set of specifically black political attitudes. The experience of the present, of relative failure in school and discrimination in employment, is joined in their consciousness with the symbolic representation of black history as 400 years in Babylon, and to assert one's identity as one who is fighting against that gives a powerful sense of release and acceptance and significance to many young black British men and women today. One has only to think oneself into the position of a self-respecting young black with a proper sense of historical priorities to see how sensible this position is to the new challenge of Rastafarianism as wished away by many whites as another aspect of youth culture and it is certainly true that many of the young men who adopt the "locke" and the heavy dreadlocks know of Rasta doctrine that comes over in pop music. Yet Rasta youth read their Bibles and have reasoning sessions as well as smoking ganja and even the police call them Rasta. Moreover, he who reads Rasta there are some highly articulate men and women who, starting from Rasta assumptions, have developed a very sophisticated political philosophy.

continued on page 12



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# The magazines that keep geography on the map



It may be that the new specialist journals that have arisen over the past generation are prestigious enough for publishing houses to continue to support them. It may be that the subscription to them will give them first priority when the inevitable revision of the budgets occurs. Even then, librarians will be combining the new journals and are bound to relinquish some geographical periodicals when the economy axe falls. But what of the subsidized publications—the *Geographical Journal*, *The Geographical Teacher*, *The Scottish Geographical Magazine*, the *Transactions of the I.B.G.*—the house journals of their respective societies? The *Geographical Magazine* ranges from a superficially healthy figure of 10,000 copies (for the *Journal*) downwards. In each case, however, a growing percentage of the total cost of the journal is spent upon publication. Editorial committees realize that they can no longer hope to expand significantly the membership of their organization.

and the professionalization of the subject that lies behind it owes much to the second generation of members of the Institute of British Geographers. The Institute, founded in 1933, has as its primary aim the promotion and publication of geographical research. With this objective in view, it established its *Transactions*. The postwar years of univer-

sive expansion witnessed an impressive increase in the Institute's membership. The Institute's research was research and anxious to find an outlet in publication. Pressures on its editorial board had several consequences. First, a series of articles in *The Transactions* side with the *Transactions*. Secondly, the frequency of publication of the *Transactions* was increased. Thirdly, there was a tenacity in search for a publication to complement the *Transactions*, which had its first expression in *The Geographical Bulletin*. Fourthly, a highly successful full form was created by the Institute's quarterly publication *Aun*, and the vitality of which has been inseparable from the contribution to it of an energetic succession of editors. Finally, the *Transactions* reports the activities of the varied study groups which the Institute supports, and is

forum in which debates on such issues are debated. As occasional demands, it can be polemical in a way that is unusual in other British geographical periodicals. A example is found in its outspoken review of the report of the Ordnance Survey Review Committee. Fifth

3. Geographical journals were being published in France and 28 in Germany. But quantity did not necessarily spell quality and the Geographical Society of Paris—world's senior society—expressed dissatisfaction with the standards of French periodical literature. As a result, in 1892, it established *Annales de Géographie* with an avowed object of raising the standards of contribution to those of the *Geographical Journal* and

German *Mittheilungen* (which became a standard publication A. H. Petersen brought into being at Gothenburg in 1855). Meanwhile, at home the geographical society of Edinburgh had been born, becoming the Royal Scottish Geographical Society in 1884. Its associated *Scottish Geographical Magazine*. To the same generation of men, of course, belongs the group of provincial societies, of which the Glasgow and Liverpool managed to keep up even journals going for a number of years. A major step forward in geographical education took place in 1861, with the publication of the *Illustrations on the Influence of the Royal Geographical Society on the Geographical Association*. It was not the Association, which aimed to bring together teachers of geography, would have been a publication. The *Geographical Teacher* (1901), the title of which was subsequently changed to *Geography*. Into the English-speaking world there was also a journal at this time.



**Captain Scott and his party discover Amundsen's tent at the South Pole.**

Regional Studies (which journal has nothing to do with the old regional geography), the meteorologists who finger in the geographical camp are those who support the *Journal of the Royal Meteorological Society*, the students of transport who look to the *Journal of Transport Studies*, the fashionable urbanists who turn to the *Urban Studies* and the geographers who have their own publishers, and about to have their own *Urban Geography* and the educationists who use the *Journal of Geography in Higher Education* as well as *Teaching Geography*, and the variety covered by British geographical publications amazes, amuses or alarms according to the point of view.

Of course, *advertising geography* is nothing new. The fashion was set more than half a century ago by *Geographical*, which hailed

developments across the whole field of the subject. If the bifurcation of *Progress in Geography* into a physical part and a human part is evidence of the finality of the journal in the totality of the subject in which it operates, it is also testimony to commercial success.

No less interesting has been the emergence of *Geobooks*, the aim of which is to make available a summary form the more significant contributions to the world periodical literature. *Geobooks* started as a single, comprehensive volume, but has now burgeoned into a seven-part series.

It is of British provenance that the *Journal of Unipolitical Geography* in geography has passed, it safe to say that a climax is over.

of geographical 'publishing' has been larger than that in most other subjects. Nor does it help to remember that the stress is not unique to Britain. In August 1980 the International Geographical Union met in Tokyo and among the several thousand participants will be the editors of a good many geographical periodicals. The cost of producing and distributing these and other *Bucknell* will doubtless be the same. It will be a good time to signal for further debate on the consequences of the explosion of geographical periodicals in a world with diminishing resources to sustain them.

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# BOOKS

## University history with a contemporary resonance

## Grenville Wall

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## BOOKS

## Afterlife

Ways to Paradise: the Chinese quest for immortality by Michael Loewe. Allen and Unwin, £15.00. ISBN 0 04 181025 2

Long before the arrival of Buddhism in approximately the first century AD, the Chinese had speculated about the destination of the soul (or, as they thought, souls) after death. Their ideas about the nature of immortality, either in the body or the spiritual sense, were as varied as the methods they investigated to try and ensure it. In this book Michael Loewe examines some of the aids which it was thought might assist the soul to attain paradise.

Drawing evidence from recent archaeological discoveries, literary sources, and a critical assessment of modern scholarly research, Dr Loewe shows how three different views of immortality were prominent at successive stages of the period, and how these were illustrated in artistic forms. The first is shown on the silk banner from the tomb of Lady Dai found at Ma Wang Tui and dating from a 168 BC. The design depicts the progress of the Countess's soul to paradise by way of the P'eng Lai Isles in the eastern seas. There is a suggestion that drugs might have assisted its passage, but this is one aspect of the quest for immortality that Dr Loewe does not consider. Both the complex composition of the painting itself and Dr Loewe's detailed commentary on it are impressive works of scholarship, revealing (as the whole book does) a richness in Chinese mythology which is still a relatively unexplored field.

Following the establishment of Confucian orthodoxy in the first century BC, the attainment of immortality was for a while predominantly associated with the more abstract goal of harmonizing man's relations with heaven. The transition of the individual into this new existence could now be made easier by the possession of a talisman, in the form of a bronze mirror, which demonstrated a perfect relationship between the elemental forces of earth and the cosmic forces of heaven. For approximately two hundred years from the mid-first century BC, the design on these circular mirrors always included a central square and a number of T, L, and V-shaped elements. Dr Loewe suggests that the so-called TLY mirror was a derivation of the divine's board commonly used in the Han period to ascertain prospects for future events. This consisted of a regular playing disc, representing heaven, partitioned on a square board representing earth. As in the case of the mirrors, each part was inscribed with symbols and characters. In Dr Loewe's opinion, the mirror shows the two sections of the divine's board immutably fixed in their respective positions.

Unfavourable conditions, the TLY pattern indicating the guidelines to use them up on the movable board. In six appendices, he proposes a classification scheme for TLY mirrors, examining their decoration, inscriptions, and dating, and summarizes information about surviving mirrors.

Later, the inscriptions on TLY mirrors began to make reference to the Queen Mother of the West. During the Later Han period, the mythological figure came to assume the power to order the cosmos and to confer deities on the human race. Not surprisingly, the idea of immortality with Central Asia in the North West corridor, the realm of the King of the West, was thought to lie to the West, and the location of paradise therefore shifted from the eastern seas to the western mountains of Khwarezm, which were represented on sacred works of art from c.100 AD onwards. He concludes the third and last part of his book with a discussion of the artistic evidence found in art and literature, and how this evidence can be used to assist in the interpretation of difficult literary allusions.

Keith Pratt

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## Cranmer once more burned at the stake

Ritual Murder: essays in liturgical reform by Brian Morris. Corgnet Press, £2.95. ISBN 0 85635 295 0

The "ritual" is the historic liturgy of the Church of England embodied in the Book of Common Prayer, the "murder" is the activity of the revisers, whose "alternative" services and translations are replacing it. The book's message is clearly expressed on its cover: Cranmer is once more burning at the stake.

The whole issue is at once contemporary—we are urged to resist the whims of the revisers if we wish to preserve our priceless heritage—and also familiar. The Church of England has been here several times before, through Prayer Book wars and Tippet-scuffles, and there have been others at other times who would have seen innovators hanged or Cranmer burned again for his "Skeletron of a Masse-Book". On all sides motives are impugned, rallying calls sounded.

This collection does all that, but its most serious criticism is linguistic. Its burden is that "there is no such thing as liturgical speech" (C. H. Slason). The essays are of various kinds (one is a college ser-

mon, some are personal chats) and the style of the most journalistically effective, like David Marjolin's "A Plea for our Common Prayer", is commonsensical and punchy, witty, satirical, passionate and eminently readable.

Many debating points are scored by conveniently recognising "them" and "us"—we who recognise the Prayer Book as "powerful stuff" and the philistine church bureaucrats who amusingly do not see that in the interests of "relevance" they ought to abandon vestments, hymn-singing, bells, candles, and all. It is polemical writing designed to make us feel in a certain way about it all, just as A. R. Rowse's innocently nostalgic piece on Shakespeare's knowledge of Cranmer and Coverdale makes us aware of the comfortable pleasures of a well-developed historical sense.

The real meat of the collection occurs in Brian Morris's essay on "Liturgical Language" and Andor Gomme's "The New Religious Language". Both show us the revisers at work, as well as exhorting us to grip up our loins against them. Morris argues the concept of "verbal registers", examines the nature of liturgical language, and nicely demonstrates the failure of the concept of "modern English". The revisers have "hoped

in on committee-language, the bureaucratic idiom, the consensus-dominated speech of administrative life as the answer to all its problems". The essay's own verbal register is a mixed one: the literary critic patiently showing us how language works and drawing on his own literary experience (Shakespeare, T. S. Eliot, George Eliot, D. H. Lawrence) to demonstrate the revisers' infelicities and incompetence; and the zealot who will in no conceivable circumstance tolerate the degeneration of his richest metaphors into wheedling cliché.

What has emerged thus far may be the uneasy feeling that our response will depend on whether or not we are ecclesiastically subnormal in educational attainment. And Gomme's victim is the Jerusalem Bible and its mode of dissonant and "disruptive" language. He is a scholarly critic of specific and accumulated examples of the translators at work. His over-riding point (hinted at by others in their responses to revised versions of the Confession) is not that this is a literary aberration only, but a religious one. It is not "them" and "us"; it is all of us: "the failure of the language marks something more profound". What it marks is our own generation's failure in religious understanding. Referring

to some of the Jerusalem Bible's "modern" and "relevant" "verbal" life is no more than to ruin it, to be blessed, if right-minded, simply integrity and virtue long ago.

It is a good question, and the contributors profoundly pessimistic, as though the best we can hope for is the education of our religion (and spiritual) achievements of our forefathers. There is nothing we can offer on our own account, at least not here, not now. The anthology as a whole reminds us that we seem unable to live contentedly with our heritage (hence the impulse to revise) and also unable properly to understand it without the right sort of "educational" attainments. It finally disturbs because in its most cogent moments it tells us that we ought to exhibit the literary symptoms of a spiritual disease which prevents us from doing anything useful either way.

R. D. Bedford

Dr Bedford is lecturer in English at the University of Exeter.

## Buddhism's splendid and melancholy story

A Short History of Buddhism by Edward Conze. Allen and Unwin, £3.95. ISBN 0 04 294109 1

Of all world religions Buddhism is arguably the most universal in character. Unlike Hinduism or Judaism, it has no ethnic basis, no sacred homeland. Unlike Islam, it is not a monotheistic religion. It is a religion of the individual, its existence could now be made easier by the possession of a talisman, in the form of a bronze mirror, which demonstrated a perfect relationship between the elemental forces of earth and the cosmic forces of heaven. For approximately two hundred years from the mid-first century BC, the design on these circular mirrors always included a central square and a number of T, L, and V-shaped elements. Dr Loewe suggests that the so-called TLY mirror was a derivation of the divine's board commonly used in the Han period to ascertain prospects for future events. This consisted of a regular playing disc, representing heaven, partitioned on a square board representing earth. As in the case of the mirrors, each part was inscribed with symbols and characters. In Dr Loewe's opinion, the mirror shows the two sections of the divine's board immutably fixed in their respective positions.

Unfavourable conditions, the TLY pattern indicating the guidelines to use them up on the movable board. In six appendices, he proposes a classification scheme for TLY mirrors, examining their decoration, inscriptions, and dating, and summarizes information about surviving mirrors.

Later, the inscriptions on TLY mirrors began to make reference to the Queen Mother of the West. During the Later Han period, the mythological figure came to assume the power to order the cosmos and to confer deities on the human race. Not surprisingly, the idea of immortality with Central Asia in the North West corridor, the realm of the King of the West, was thought to lie to the West, and the location of paradise therefore shifted from the eastern seas to the western mountains of Khwarezm, which were represented on sacred works of art from c.100 AD onwards. He concludes the third and last part of his book with a discussion of the artistic evidence found in art and literature, and how this evidence can be used to assist in the interpretation of difficult literary allusions.

Keith Pratt

Keith Pratt is Spalding Lecturer in Chinese Language and Literature at the University of Durham.

especially remembered for his work on the body of literature known as the Prajnaparamita, the "Perfection of Wisdom", which, as he once wrote, "by some obscure karmic dispensation has during this life been my dominant interest".

For Conze, the story of Buddhism is "not only a splendid but also a melancholy one". His division of Buddhist history into four main periods is based on a traditional Buddhist historiography which in turn elaborates a prophecy of the progressive decline of Buddhism uttered by the Buddha himself. The first period, from 500 to 0 BC, covers the development in India of the early schools of Buddhism, of which the closest surviving form is the Theravada Buddhism of South East Asia. The second period, from 0 to 500, covers the rise to the more liberal and innovative forms of Buddhism known collectively as the Mahayana, or "Great Vehicle". The third period, from 500 to 1000, witnesses the rise of the Tantric Buddhist faith in the Himalayan regions and of the Zen and Pure Land sects in China.

During the fourth period, from 1000 AD onwards, Buddhism "no longer renewed itself, but just persisted"—and yet these centuries saw the virtual extinction of Buddhism in India, the fruitless transplantation of Zen to Japan, the magnificent flowering of the Buddhist culture of Tibet, and a growing Western interest in Buddhism, not only at the philosophical and scholarly levels but also as a full religious option.

Conze outlines the main intellectual developments of Buddhism and its multifarious cultural transformations. Philosophical disputes were a principal cause of doctrinal divisions, though doctrinal differences in Buddhism have generally reflected revised interpretations of meditative experience rather than rival attempts to create a definitive formula. The Buddhist attitude to alternative viewpoints has typically been one of tolerance and eclecticism. One characteristic of the development of Buddhism was that "the innovations of each new phase were backed up by the production of a fresh canonical literature", always regarded as emanating somehow from the Buddha himself.

The institutional basis of Buddhism from the very beginning has been monasticism, the *sangha*, or

which depended upon some usable service to the community and, ultimately, the support of wealthy (usually royal) patrons. Moreover, Buddhism has survived not only as a social entity but also as a fully fledged religious system. One fallacy swept away by Conze's fast-moving survey is that Buddhism is essentially an abstract philosophy of existence or a bare set of meditative techniques. For the devotee, it is a way of life, and often a way of life that is more important to many of the elements familiar in other religions: rituals, images, ordinations, initiations, vocations, priests, pilgrimages, magic, miracles, mythology and a cosmos thronged with supernatural beings.

This little book is not, of course, intended for the specialist in Buddhist studies. But for the general reader it offers a lucid and reliable introduction to Buddhist thought, such that the book currently has no competitors and is likely to establish itself as a standard textbook.

Peter Moore

Dr Moore is lecturer in comparative religion at the University of Kent.

## Clinging to the myths of Maoism

China, and Christianity: historical and cultural encounters by James D. Whitehead. St. Augustine's, £15.00. ISBN 0 286 00730 6

This is a collection of papers presented at a conference held at the University of Notre Dame in the summer of 1977. The editors divide the history of the relationship between Christianity and Chinese culture into three parts: the first is the 400 years of "missionary" activity, which ended with the Communist expulsion of the missionaries; the second is the period of the "cultural revolution" of the twentieth century, and is characterized by Western Christians' increasing awareness of the "cultural" myths and attitudes that had informed centuries of missionary effort; the third stage, dating from two conferences held in 1978, sees Western Christians, chastened by history, showing new interest in learning about China.

This last stage embraces both a new desire to find out about the rich religious history of China and a new attempt to attend to the workings of God and man in China's present-day reality.

God's purpose may (or indeed even must) somehow be revealing itself in China today. Hence the first task of the conference was to investigate the "spiritual roots" of Chinese tradition and to discover affinities with Western religious experience. For example, Julia Ching found "more similarities than differences between Confucian and Christian notions of man". Richard Bush looks for the religious dimension in Chinese Communist thought, and finally N. Girardon speaks about the "Jesuit experience in China".

The Jesuits found cause for hope by discovering in the Confucian literature an ancient awareness of a supreme deity, which had since been corrupted by the "false sects" of Taoism and Buddhism. At the same time, for their evangelical purposes, they reluctantly accepted worship to that it could be allowed to exist alongside Christian beliefs. These Jesuit mandarins also came to accept the Confucian self-image of China as a country whose greatness depended on a sophisticated intellectual and moral order established by a country governed by a philosopher-king, in the Confucian classical, that ancient repository of wisdom which was the sole proper source of education and culture.

ship. A keynote of these classics was a humanist emphasis on man and society, so that this was a simplified, idealistic image of China, revered by Europe by the Jesuits and appealed greatly to the Age of Enlightenment; and indeed was an important factor in the de-Christianization of Europe.

Unfortunately, the lesson of the Jesuit experience was lost on the remainder of the conference. Whereas the Jesuits in their time accepted the self-image of the Confucian literati, their successors today have seen too little reason to accept the Marxist self-image in their anxiety to believe that a quarter of mankind is not entirely shut off from God's purposes.

The belief that men can be remodelled obviously has a powerful appeal to Christians, and one participant went so far as to say that Chinese life seemed to be "creating a new society and a new individual". Another listed the characteristics of the present regime in a manner which could hardly be improved as an apology for Maoism, including, for example, "an ethic of selfless service", "a full employment for nearly a quarter of the human race", "personal and public morality, low crime rates, and a high rate of literacy".

It is true that here and there in the proceedings there is a healthy sense that Christians must get their own houses in order, and must be on the right side in the battle against social evils in other societies, before they can hope to be of any interest to the Chinese. But three years after the conference took place many of the participants must have cause to ponder the irony of their remarks and to hear the words of Donald Davidson, one major dissident who said: "Today some of the most vigorous voices in all Christianity come from the spokesmen of progress, who in the USSR, who have only contempt for those foreign churches who sought to cuddle up to the Soviet regime".

Raymond Dawson

Raymond Dawson is a fellow of Wadham College, Oxford.

## BOOKS

## Rebels against background and naturalism

The Life of Katherine Mansfield by Anthony Alpers. Jonathan Cape, £9.50. ISBN 0 224 01625 3

Age of Fry: art and life by Frances Spalding. Granada, £9.95. ISBN 0 236 40127 5

When a fellow resident at the Goldsmith Institute asked Katherine Mansfield "What do you do in life?" the reply was simple: "I am writer". Invited to elaborate, she became less assured:

"Do you write tragedies, novels, romances?" "No," she said, and with still deeper distress, "only short stories, just short stories." Although it pained Katherine Mansfield to admit that she did not do "big" things, many people would deny that her achievement as a short story writer needs any apology whatsoever. Until recently, however, it has been difficult to gauge exactly what claims to make us regard her as a writer of importance, partly because of general unease about reputations based entirely on "just short stories", and in Mansfield's case, because her husband Middleton Murry promoted a seasonal legend of fragile genius by situation.

Both these books relationships with contemporaries play a prominent part: Mansfield's with the Lawrence, Bertrand Russell, Orage of *New Age*, and of course Murry; Fry's with fellow artists at the Omega Workshops and the New English Art Club. There were friends in common too, like Virginia Woolf, who is shown by Anthony Alpers to owe much more to Katherine Mansfield than is generally realized, and by Dr Spalding to have benefited greatly from Fry's generous way of sharing all of his ideas, whether about literature or about art.

Connections between literature and the visual arts fascinated both Mansfield and Fry, though naturally with different emphasis. Anthony Alpers usefully draws attention to the legend, along with due reticence, while Murry and many other of Katherine Mansfield's intimates were still alive, inhibited Anthony Alpers when he first wrote about her in the 1950s. Now, using newly available material, he has clarified some of the mysteries, including her lifelong one-day marriage and her trip to Bavaria, alone and pregnant, in 1920. The *Life of Katherine Mansfield* offers a leisurely and impressively detailed account of her development from avid young

colonial, burning to write, to the admired author of such stories as "Prelude" and "Bliss". Early biography of Roger Fry also suffered from incompleteness; quite apart from being a close friend writing at the request of his family, his first biographer Virginia Woolf knew little about painting beyond, presumably, what she learnt from her sister Vanessa and Fry himself. Frances Spalding has the detachment and the expertise to supply what Woolf lacked for this particular task. In *Roger Fry: art and life* she provides quick, fresh information about Fry's emotional life without detracting from the seriousness of his attempts to be a painter working in a distinctively English tradition. Fry saw himself as "a serious artist with some sensitivity, enough taste and more intelligence than average painters", rather than "a great artist" and this description has prevailed in the common view of him as primarily an art critic. But, as Dr Spalding demonstrates, he produced paintings that deserve better than the very scorn his contemporaries accorded them.

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the influence on Katherine Mansfield of what she saw, as well as what she read, her excitement over the Russian ballet is well known, but less familiar is the suggestion that Jugendstil illustrations of stock figures arrested in characteristic poses caught her imagination while she was in Germany and passed virtually undisturbed into the bold lines of her early fiction. Colour, light effects and vivid décor feature strongly in Mansfield's later stories, too, and the illustrations to the *Exhibition* arranged by Roger Fry in 1910, haunted her long afterwards; Van Gogh's pictures especially taught her, so she told Dorothy Brett, "something about writing which was a kind of freedom—or rather, a shaking free".

Unfortunately, constant distractions prevented Katherine Mansfield from fulfilling her desire to do in language what the Post-Impressionists were doing in paint; for this reason, the fragmentary nature of Alpers's narrative, cutting from one scene to another with frequent authorial interpolations, seems curiously appropriate. If sometimes many journeys abroad were always adventures connected with work, Katherine Mansfield's restless changes of locale, far from nurturing her talents, dissipated them as she lurches from one unsatisfactory situation to another. Dr Spalding quotes Fry's daughter Pamela remembering him as "always leaving things behind, people and styles" and the argument that the onward drive of his work was ensured by an ability to let go of relationships and achievements is a convincing one.

In contrast, Katherine Mansfield often had the illusion of beginning anew but, as Anthony Alpers indicates, she was forever reliving her early rebellion against family conventionality. She never really left New Zealand and her ambitious

father, the pattern of blissful expectation, followed by embittering rejection recurs throughout her life and fiction. Roger Fry was rebellious against dreary naturalism, in art, and because he believed every so often "you have to break the mould and start afresh", he was free to alter his view about, say, representation in painting, without feeling his intellectual position undermined. For Katherine Mansfield, to "break the mould" would have required more insight into the mutual destructiveness of her relationships with the women as well as the men she attracted than she actually had.

Katherine Mansfield's long years of illness, early death, and unfulfilled ambitions are oppressive facts which are bound to cast a shadow over any account of her life. And when the biographer is as compassionate as Anthony Alpers is, a very long shadow indeed. He even traces the poignant omens of his unhappy ending back to the very moment when "Katherine Mansfield was born on a fault line". The ironies, bitter-sweet coincidences and night-mare dreams that pervade this book modulate into a cadence of prolonged distress that diminishes any sense of Mansfield as a self-willed individual capable of responsibility. In personal volition, so this often emerges as manipulation, but in her work it was an exacting determination "to be a writer, a real writer given up to it and alone". The method of setting discussions of her critical writing against the often outrageous, and sometimes almost comical, behaviour of her life increases the impression that in order to depict the life as more than a failed Alpers has compromised his well-founded belief that the writer and her work cannot be divided; it seems that he does want us to judge them differently after all.

Roger Fry displayed remarkable firmness and unity through his numerous changes of opinion and

his considerable personal sufferings. The qualities he admired in all art and found especially in French painting—openness, "alert psychological curiosity" and a "peculiar quick awareness of the subtlest shades and implications of actual life"—tempered with classical restraint—were his own characteristics and what he looked for in others. To describe the blend of "exhilarating richness, grace and austerity" he found in his late Holen Anrep he had to reach for the word "Cézannian": the fusion of art and experience is entirely typical.

Even if, as Dr Spalding indicates, Fry did not achieve a consistently personal idiom in his painting, he did succeed, through his writing, lecturing and organization of exhibitions, in helping large numbers of people to see what was truly important in modern art. In comparison, what Katherine Mansfield accomplished is to look slight, and Anthony Alpers does not really confront the question of why the stories survive so well. But his painstaking re-creation suggests many possible reasons why the stories are so few and different. The self-doubt that made Katherine Mansfield tell Murry that nothing could be done until an answer in "Who am I?" was found indicates not only the continuing adoption of different personalities evident in her life but also the powerful mimicry to be found in many of her stories. Katherine Mansfield never felt she had found her true self, but it may well be that this distinctive nature of her best stories springs from the same emotional instability that made her relationships such sorry affairs.

Valerie Shaw

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## BOOKS

## Victim of a tragic illusion

Selected Philosophical Papers of Robert Boyle  
 Edited by M. A. Stewart  
 Manchester University Press, £12.00  
 ISBN 0 7190 0681 3

Samuel Johnson once remarked that everyone praised Boyle but no one read him. That is as true today as it was then. It is not their rarity which limits the readership of Boyle's works. The Birch editions of the eighteenth century are to be found in most major libraries and have recently been reprinted in facsimile; the *Sceptical Chymist* has been available in an expensive format since 1911; and Dr M. B. Hall published a substantial selection from the *Works* in 1965. It is rather Boyle's rambling, convoluted, leaden style, parodied by Butler and Swift, which deters readers. Even the dialogue form fails to lend sparkle to the *Sceptical Chymist*.

Recent, historiographical trends may have raised the secret hope that it is unnecessary to pretend to have read Boyle. To the editor of the 1911 *Everyman* edition Boyle was to be praised for teaching that the only way to understand nature was to "put away all preconceived opinions, and painfully investigate objective facts, undisturbed by the reproach that we are banishing poetry from nature... and taking crude empiricism... as our guide."

Today we are inclined to regard the novel importance gained by "painful" observation and experiment in Boyle's day as the consequence of the new mechanical and mathematical conception of nature, rather than as having somehow led to that conception. We are more sympathetic to Leibniz's complaint that Boyle was the victim of a tragic illusion in believing that his great mass of experiments showed that nature obeys mechanically, when it was "a principle which can be rendered certain by reason alone, and never by experiments, whatever their number."

Recent scholarship has also greatly devalued past claims (though not by Boyle himself) about his role in formulating "Boyle's Law" or his supposed anticipation of Lavoisier's definition of chemical elements. Can we then give up trying to read Boyle?

That enticing prospect soon fades. He may not be important for the reasons offered in the past, but he cannot be ignored in any study of the intellectual history of the seventeenth century. His relentless prose may seem to have bored and bludgeoned his contemporaries into accepting the mechanistic view. He is, nevertheless, a representative "virtuoso" and a leading propagandist for the new conception. His career spans not only the better-known Oxford group and early Royal Society, but also the "Invisible College" and Hattisb circle, whose social and intellectual role has recently come under closer historical scrutiny. In any attempt at understanding the change involved in the transition from peripatetic natural philosophy to the seemingly rapid enthronement of the mechanical philosophy as a commonsense view, we cannot ignore the intellectual development of Robert Boyle.

Boyle's influence on Locke's distinction between primary and secondary qualities has recently attracted the attention of historians of philosophy. Dr M. A. Stewart's selection is addressed principally to them, as well as to philosophers of science and those interested in the relation of the scientific, philosophical and religious ideas of the period. He has chosen pieces which expound Boyle's version of corpuscularism, his critique of the forms and qualities of Aristotelian and "chymical" his reconciliation of atomism and faith, and his ideas on the scope and limits of human knowledge. To improve readability, the editor has modernized spellings, yoked together or disjointed sentences, and altered the arrangement of paragraphs. Such boldness will help to smooth the way of the modern reader, although the editor cannot, of course, offer us an "abridged and methodized" Boyle.



Robert Boyle

like eighteenth-century epitomizers. As the real obstacle to reading Boyle is in his style and ultimately in his cost of mind, such tinkering can only offer partial relief. Those without easy access to the *Works* will find the selection, with the editor's notes and bibliography, very useful. The serious student will have to continue to struggle with Boyle's meandering prose and pursue to the end of the century through the bulky volumes of the Birch edition.

P. M. Rattansi

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## Primate evolution

Paleoanthropology  
 by G. E. Kennedy  
 McGraw-Hill, £10.75  
 ISBN 0 07 034046 3

Evolutionary History of the Primates  
 by F. S. Szalay and Eric Delson  
 Academic Press, £24.20  
 ISBN 0 12 680150 9

These two new books offer a current synthesis of the rapidly accumulating paleoanthropological evidence relating to our own evolutionary history as well as to the evolutionary history of our closest relatives, the non-human primates. However, they do so from two different viewpoints.

Gail Kennedy's book is an intermediate level text in human evolution and, as such, draws from the plethora of information on primate evolution that which is specifically relevant to the evolutionary history of our own species. She deals, for example, with the morphology of primate evolution in general and human evolution in particular. The text does go beyond previous books in providing a discussion of the geographical and environmental context of evolution. Rather than being an inquiry into the process of evolution, however, it is a restatement of the fossil record which largely fails to integrate the paleoanthropological and morphological data or to adequately define or to discuss the evolutionary points of controversy surrounding the interpretation of the fossil record. This is particularly apparent in the manner in which ancestor-descendant relationships are presented throughout the text.

In an introductory chapter the author presents cladistics (the study of evolutionary relationships between species which reflect recent origin from a common ancestor) as an objective means of deducing evolutionary relationships and claims it as the theoretical basis for the text. The implications of this phylogenetic relationships. This organization also makes it possible to use the book either at the general level of the higher taxonomic categories or at the more specific levels of the lower categories or the individual fossil specimens. In addition, the book is well referenced and illustrated and includes a clear glossary.

Although it is the author's prerogative to derive the higher primates from Eocene adapids rather than omomyids, to accept *Ramapithecus* as a hominid and to consider the taxon *Homo habilis* as *Australopithecus*, a text of this level would be considerably more useful if it clearly dealt with the theoretical bases for the controversies surrounding these and other questions.

Despite being weak on the theoretical level, the emphasis of the

text on the synthetic integration of information from wide ranging disciplines relevant to human evolution is important. In *Adaptation*, which is a sound discussion of the fossils in the Middle and Late Pleistocene, which are often emphasized in similar texts, there are a number of chapters of geographical distribution which are useful in the clarification of the temporal and geographical relationships of fossils at all levels of the sequence.

The second book is designed for the established biologist or physicist. Despite its conceptual clarity and its success in those simple situations where it could be applied, it was regarded as too methodical and intractable to attract much attention and it was not clear that situations could arise in the real universe where general relativity effects would be important. In the past 20 years, however, the situation has changed radically. It has been found that there are many situations where general relativity is important, and the theory has found application in such diverse topics as superconductivity, black holes, gravitational waves, and perhaps most importantly, cosmology.

It is hardly surprising, therefore, that there has been a proliferation of books on the subject. The most recent ones come from two of the leading cosmologists, J. V. Neugebauer and A. K. Raychaudhuri. Raychaudhuri's book, an introductory text on general relativity and cosmology for applied mathematicians and theoretical physicists, is based on a lecture course he gave at the Institute of Fundamental Physics. He starts off by introducing the reader to the necessary mathematical notions of tensor calculus and non-Euclidean geometry.

He then presents the basic ideas of general relativity theory, derives the Schwarzschild solution, describes the various experimental tests of the theory, and applies it in the context of supermassive stars and black holes. The second half of the book is on cosmology. The simple Friedmann models, as well as some of the more unconventional ones, are described and the various observational tests are discussed. The author finishes by providing a survey of some of the more advanced topics in relativistic cosmology, such as the singularity theorems and the quantum effects associated with small black holes. The trouble with such an

approach is that there are now many introductory textbooks on relativity and cosmology, and they all tend to be very similar. Raychaudhuri's treatment of the subject, although it does incorporate a number of unconventional topics not normally tackled in such a book, is very much in the traditional style, so one is bound to ask whether this book has anything new to offer. Two things may be said in its favour. First, by emphasizing the physical rather than the mathematical aspect of the theory, it is fairly concise (only 270 pages); second, it contains a well-constructed set of exercises which test the student's grasp of the subject matter very effectively.

On the other hand, it must be said that the treatment of some topics is rather scanty for a book given to physicists. Thus, a very good discussion of the theory of black holes and supermassive stars is marred by a lack of any discussion of the evidence that these objects actually exist. And the discussion of gravitational waves, which is likely to prove one of the most exciting in relativity in the coming decade, is barely mentioned.

The section of the book on cosmology is also rather unbalanced. Some of the most important topics in cosmology, for example, the microwave background and cosmological nucleosynthesis, are hardly touched upon, whereas the steady-state theory, which most cosmologists now regard as more than an historical curiosity, is given a whole chapter. Perhaps the author's view that the steady-state theory is presently "under a cloud" (something of an understatement) reflects his hope that cosmological trends and predictions may prove to be as misleading as meteorological ones.

Raychaudhuri's book deals exclusively with cosmology and is at a much more detailed level than Narlikar's book, though not as comprehensive as some others on the same subject. It is, however, useful as an introductory text for the reader who wants to learn about general relativity in just a few hundred pages.

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Bernard J. Carr

Bernard J. Carr is at the Institute of Astronomy, University of Cambridge.

## The key to the Shetlands

Natural History of Shetland  
 by R. J. Berry and J. H. Johnston  
 Collins, £8.50  
 ISBN 0 00 219084 2

Shetland has taken place both in the world's natural history and in the world of publication. Since the New Naturalist series was launched by Collins in the mid-1950s, the Shetland Islands have been the subject of a series of books, each dealing with a different aspect of the islands' natural history. The first, *Shetland: A Natural History*, by R. J. Berry and J. H. Johnston, is a comprehensive and authoritative account of the islands' natural history, written by two of the leading experts on the subject.

The Shetland Islands constitute a clearly limited and distinctive area which is well suited to this treatment. In the Shetlands, the natural history is not only unique, but also very different from that of any other area in the British Isles. The islands are situated in the North Atlantic, and their climate is very different from that of the rest of the British Isles. The islands are also very different in their geology, and their flora and fauna are very different from those of the rest of the British Isles.

The book is written in a clear and concise style, and it is well illustrated with many photographs and drawings. It is a valuable addition to the literature on the natural history of the Shetland Islands, and it is a must-read for anyone interested in the islands' natural history.

Leslie C. Aiello is lecturer in anthropology at University College London.

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Peter D. Moore is senior lecturer in plant sciences at King's College, London.

## BOOKS

## Models of cosmology

Lectures on General Relativity and Cosmology  
 by J. V. Neugebauer  
 Macmillan, £9.95  
 ISBN 0 333 24153 3

General Cosmology  
 by A. K. Raychaudhuri  
 Oxford University Press, £10.00  
 ISBN 0 851462 X

In the first 50 years after its inception, general relativity theory has largely been neglected by the rest of physics. Despite its conceptual clarity and its success in those simple situations where it could be applied, it was regarded as too methodical and intractable to attract much attention and it was not clear that situations could arise in the real universe where general relativity effects would be important. In the past 20 years, however, the situation has changed radically. It has been found that there are many situations where general relativity is important, and the theory has found application in such diverse topics as superconductivity, black holes, gravitational waves, and perhaps most importantly, cosmology.

It is hardly surprising, therefore, that there has been a proliferation of books on the subject. The most recent ones come from two of the leading cosmologists, J. V. Neugebauer and A. K. Raychaudhuri. Raychaudhuri's book, an introductory text on general relativity and cosmology for applied mathematicians and theoretical physicists, is based on a lecture course he gave at the Institute of Fundamental Physics. He starts off by introducing the reader to the necessary mathematical notions of tensor calculus and non-Euclidean geometry.

He then presents the basic ideas of general relativity theory, derives the Schwarzschild solution, describes the various experimental tests of the theory, and applies it in the context of supermassive stars and black holes. The second half of the book is on cosmology. The simple Friedmann models, as well as some of the more unconventional ones, are described and the various observational tests are discussed. The author finishes by providing a survey of some of the more advanced topics in relativistic cosmology, such as the singularity theorems and the quantum effects associated with small black holes. The trouble with such an

approach is that there are now many introductory textbooks on relativity and cosmology, and they all tend to be very similar. Raychaudhuri's treatment of the subject, although it does incorporate a number of unconventional topics not normally tackled in such a book, is very much in the traditional style, so one is bound to ask whether this book has anything new to offer. Two things may be said in its favour. First, by emphasizing the physical rather than the mathematical aspect of the theory, it is fairly concise (only 270 pages); second, it contains a well-constructed set of exercises which test the student's grasp of the subject matter very effectively.

On the other hand, it must be said that the treatment of some topics is rather scanty for a book given to physicists. Thus, a very good discussion of the theory of black holes and supermassive stars is marred by a lack of any discussion of the evidence that these objects actually exist. And the discussion of gravitational waves, which is likely to prove one of the most exciting in relativity in the coming decade, is barely mentioned.

The section of the book on cosmology is also rather unbalanced. Some of the most important topics in cosmology, for example, the microwave background and cosmological nucleosynthesis, are hardly touched upon, whereas the steady-state theory, which most cosmologists now regard as more than an historical curiosity, is given a whole chapter. Perhaps the author's view that the steady-state theory is presently "under a cloud" (something of an understatement) reflects his hope that cosmological trends and predictions may prove to be as misleading as meteorological ones.

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published literature which is not referred to in the book.

He begins by presenting a useful critique of Newtonian cosmology and comparing it to relativistic cosmology. This is well worth doing, because, although in some respects the two formulations are rather similar, there are important differences. He then discusses the simplest relativistic models and considers how they fare when confronted with the observational data. In this context, he does not shrink from drawing attention to some of the more anomalous data, and by his comprehensive referencing of recent literature, he succeeds in getting across the complexity of the issues. He then as a chapter on the more complicated cosmological models, such as the anisotropic Bianchi models and the rotating Godel model. There follow chapters on the microwave background, the thermal history of the universe, cosmological nucleosynthesis, and the initial Big Bang singularity.

Like Narlikar, Raychaudhuri is not afraid to make a detour from mainstream cosmology. Thus, three chapters are devoted to exploring more unconventional ideas, such as the varying G models of Dirac and Brans-Dicke, and the cosmologies based on the Einstein-Cartan and Hoyle-Narlikar theories. He discusses these models in considerable detail and so provides a considerable amount of material for the researcher who wants to chew in unconventional pastures away from the rest of the cosmological herd. Returning to mainstream thought, the author discusses the fate of conventional models in the context of galaxy formation.

In conclusion, Raychaudhuri's book can be highly recommended to anybody who wants to know more about cosmology than he will learn from Narlikar's book. And Narlikar's book, though not as comprehensive as some others on the same subject, will prove useful as an introductory text for the reader who wants to learn about general relativity in just a few hundred pages.

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## Heroic sanitarian

Victorian Social Medicine: the ideas and methods of William Farr  
 by John M. Eyer  
 Johns Hopkins University Press, £11.75  
 ISBN 0 8018 2246 7

There are no heroic figures in modern British medicine to match the Victorian sanitarians, Florence Nightingale, Edwin Chadwick, John Simon and William Farr. The first three have been the subjects of substantial and adequate biographies respectively by Cook, Fisher and Lambert. Until recently Farr, a lesser public figure than the others, has received little more than passing mention, despite the availability of abundant sources, and the undeniable evidence of Farr's importance as the architect of the first 40 volumes of the *Annual Reports of the Registrar General*.

Eyer's sober, systematic, and well-documented study does ample justice to Farr's work in the field of "social medicine". Farr is a classic figure from Samuel Smiles, the son of a farm labourer, self-educated, and trained in medicine by apprenticeship. His type found it difficult to make progress through to orthodox channels in the medical profession. As in the case of Frederick Salmon, the case of Farr's early writings before the later fell into the hands of the Registrar General. He was never to rise above this position.

Eyer's researches have not cleared up some of the mysteries concerning Farr's early career. He accepts the common view that the year spent by Farr in Paris (1829-30) was an important formative influence on his ideas on hygiene, but all the evidence points to the much greater significance of the indigenous British tradition of political economy. Medical men had played a conspicuous part in the movement, and from the time of Petty the medical statisticians had periodically pressed for the registration of births and deaths, the introduction of which in 1837 gave Farr an opportunity to assume public office. To further evidence has emerged to explain why Farr was selected for this post.

Farr adapted the widest terms of reference for his work and he quickly established his reputation as a model. For instance, his philosophy was the basis for most subsequent national and international classifications of the causes of death. Farr's work provided for the first time a statistical justification for the claims of the sanitarians concerning the effects of urban conditions on rates of infant mortality and longevity. Paradoxically the classics of Engels and Chadwick appeared too soon to take full advantage of Farr's work. Engels mentions Farr's reports once; Eyer does not mention Engels or related propagandists.

Simon and Nightingale utilized Farr's department extensively. Indeed Florence Nightingale exploited Farr in her missions and vendettas—including the one against Simon. This association is well described by Eyer, whereas the relationship between Chadwick and Farr is only touched upon peripherally. Following similar lines in the chapter on "social medicine", Farr is a classic figure from Samuel Smiles, the son of a farm labourer, self-educated, and trained in medicine by apprenticeship. His type found it difficult to make progress through to orthodox channels in the medical profession. As in the case of Frederick Salmon, the case of Farr's early writings before the later fell into the hands of the Registrar General. He was never to rise above this position.

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Charles Webster

Charles Webster is reader in the history of medicine at the University of Oxford.

## Plasticity of scientific facts

Genesis and Development of a Scientific Fact  
 by Ludwig Fleck  
 Edited by Thaddeus J. Trenn and Robert K. Merton  
 University of Chicago Press, £10.50  
 ISBN 0 226 23234 4

This book is itself a fascinating study in the sociology of knowledge. Its author was not a philosopher but a distinguished medical scientist. His career has been a long one, including professional success under the anti-semitic pre-war Polish government, survival under the Nazis, and then the flight to America, where he died in 1961 at the age of 65.

He knew that his book was ahead of its time, and so it was. Published in Switzerland in 1935 (the best edition), it was reviewed only in medical journals. It was noticed by English language scholars only through a somewhat embarrassed citation by the post-war philosopher Reichenbach, who used a phrase which Fleck disapproved. The book's influence on the philosophy of science was indirect, but it was there. The person who chased the reference was Thomas Kuhn, who here contributed to the content and style of his book. The book had a long history, thirty years for its special "chapter" style, to find a "thought-collective" ready for it.

A summary offered to science was rejected in 1951 (perhaps for its obscurity) and again in 1976, as having been "oversaken" by the philosophy of science. But the book had already been read, and it was already under way. First Baldwin in Birmingham and then a group around Thaddeus Trenn at Regensburg achieved translations. The present volume is a product of this collective effort, much in the style that Fleck described.

So much for the career, what of the content? The "fact" of the title is the Wassermann test for syphilis. Its "genesis" is in the scientific elaboration of a particular case of the general concept of "fact" (the test is actually a complicated indicator of antibodies in blood serum). This is significantly different from the historical identification of syphilis with its micro-organism, which is the subject of the book's second half.

The "evolution" of the fact is displayed in an intimate study of the way it developed, not merely in terms of the scientific community, but also in terms of the social and political context. The book is a study in the sociology of knowledge, and it is a study in the sociology of knowledge.

He remarks on the total contrast with the view of facts in the non-scientific literature, either handbooks, textbooks or popularizations. Perhaps the "fact" of medical research are particularly "evolutionary". Fleck's thesis was alien to the dominant positivistic philosophy of science, and it is the official ideology of science, but even to Kuhn's version of a social construction of normal scientific knowledge through puzzle-solving, a rather different kind of "fact" is implied.

The historical study is followed by an epistemological analysis, in which Fleck introduces the concepts of "thought-collective" and "thought-collective" (the cognitive and social aspects, respectively, of the framework that constrains and guides the research worker). There is also some discussion of the work of a colleague community, divided into "thought-collective" and "thought-collective" (the cognitive and social aspects, respectively, of the framework that constrains and guides the research worker). There is also some discussion of the work of a colleague community, divided into "thought-collective" and "thought-collective" (the cognitive and social aspects, respectively, of the framework that constrains and guides the research worker).

For some time to come. But when Fleck encounters the basic philosophical question of scientific truth, he comes down on the side of sociological coherence, leaving unexplained the real progress that occurred in the course of the scientific community's work. The very meaning of which shifts inescapably from one paper to the next.

Perhaps the limitations of Fleck's analysis derive from the regrettably narrow boundaries of his experience. Although he was well aware of the speculative earlier history of syphilis, and sensed that the Paracelsian conception of science (popularized partly through its medical therapies for skin diseases) was totally different from ours, still he saw the practical problem of syphilis from the clinical and research perspectives. Had his history encompassed all the social aspects of the disease, including its contradictory relations with prostitution, he then might have seen how even standardized "facts" can take on quite different social implications, depending on their use in policy formation. In these circumstances, the more speculative and philosophical aspects of Fleck's thesis about a disease may be seen as a decline in the assignment of prestige and allocation of resources; we see this flow with cancer and heart disease. It is in this realm that the interpretations of subjective and "objective" elements of science is most amenable to study. But this is not to call for a book that Fleck did not intend to write: it is a mark of its enduring merit that it leads us directly to the problems in the sociology of knowledge that are only just emerging.

J. R. Ravetz

J. R. Ravetz is head of the division of history and philosophy of science at the department of philosophy, University of Leeds.



The Barn de Riche, limestone bust of an Iberian lady in her elaborate jewellery and head-gear. Fourth century B.C. Illustration taken from *The Prehistory of the Mediterranean*, by D. H. Trump, published by Allen Lane at £7.95.

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#### LECTURER IN THE DEPARTMENT OF LEGAL STUDIES

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- social-theoretical analysis of education as a social reproduction
- theories on personality development and socialization.

Applicants should preferably be able to demonstrate, through publications, their capability to develop education and research in the field of theoretical pedagogy as outlined above. Successful applicants should further have knowledge of scientific-theoretical trends within the social sciences, and their relationship with social developments.

Duties will include:

- giving lectures and courses
- offering guidance to students writing degree reports, and supervising educational research projects
- doing research
- carrying out managerial and organizational assignments, in accordance with democratization process for decision making at the Department of Pedagogy.

The salary will, in principle, be on the level of scale 152 BBAR.

Information may be obtained from Drs. B.G. van Gelder, telephone 020 - 525 3318.

Applications, with curriculum vitae and a list of publication titles, should be addressed, within 30 days from this date, to Prof. Dr. L. Dasberg, Subfaculteit Opvoedkunde, Prinsengracht 227, 1015 DT Amsterdam, The Netherlands, stating vacancy number 3785.

### CAPRICORNIA INSTITUTE OF ADVANCED EDUCATION

Rockhampton, Queensland, Australia  
Department of Mathematics and Computing

### Lecturer or Senior Lecturer in Computing Subjects

Applications are sought for a position as a Lecturer or Senior Lecturer specializing in computer subjects through no confined there. Applicants should be well qualified, with business or industrial experience, and with good reason for us to believe they can teach well. They are also expected to be creative, via research, consulting, or some other channel.

C.I.A.E. is a small multi-disciplinary college teaching a range of degree diploma and post-graduate qualifications, engaged in a spectrum of research and consulting, and in a rural setting.

Appointment may be made by means of a three-year contract or on permanent terms.

Current salary scale:  
Lecturer: \$A14,673 to \$A22,364 p.a.  
Senior Lecturer: \$A22,842 to \$A26,623 p.a.

Further details may be obtained from the Agent General for Queensland, 392 Strand, London WC2R 0LZ, with whom applications close on 11th July. Applications should include personal information and details of qualifications and experience together with the names of three referees.

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CONTACT MARIE CORBETT 837 1234 Ext. 437

## Colleges and Institutes of Technology

## IRELAND

CITY OF CORK VOCATIONAL EDUCATION COMMITTEE  
CORK REGIONAL TECHNICAL COLLEGE

Cork is situated on the South Coast of Ireland, close to magnificent boating, fishing and recreational facilities, and is within one hour's drive of Ireland's most beautiful scenery.

Cork Regional Technical College, which is the largest such institute in Ireland and which gives particular attention to serving the needs of the South Western Region has embarked on an expansion programme at Certificate, Diploma and Degree level in Applied Science, Engineering, Business and Management Studies, Catering and Tourism Studies.

Additional posts will be created at Lecturer I level and applications are invited from suitably qualified persons for appointment to them. It is envisaged that these posts will arise in the following areas:

## 1. CHEMICAL ENGINEERING/TECHNOLOGY

The College has operated a Diploma in Chemical Technology for some years and has now initiated a degree programme.

## 2. ELECTRONIC ENGINEERING

The College has operated a Diploma in Electronic Engineering for some years and has now initiated a degree programme.

## 3. MECHANICAL ENGINEERING

The College has operated a Diploma in Mechanical Engineering for some years and intends to establish a degree programme in this area in the session 1980/1981.

## 4. COMPUTING

The College at present operates a course in Computing and intends to establish a degree course in this area in the session 1980/81.

## 5. TOURISM

The College initiated the first course in Ireland in this area of study in 1978. It envisages further developments in the area in view of the importance of the Tourism Industry for the country.

Additional Lecturers are required to develop the teaching and development programme.

The additional staff are required to develop the teaching and practical programmes in these areas. The College has well-equipped workshops and laboratories in all the above areas of Technology and it is intended to enhance and extend the present computer facilities which consist of a mainframe computer and two mini-computers.

Qualifications in accordance with the regulations of the Department of Education.

Salary scale: £7,694 to £10,353 (11-point scale).

Application forms and details of the posts may be obtained from the Principal, Cork Regional Technical College, Rossa Avenue, Cork, Ireland; telephone Cork 45222.

Completed application forms must be returned not later than Monday, July 7, 1980.

## Universities continued

## Belgium

The Queen's University  
LECTURESHIP IN SPACE AND ASTROPHYSICS

Department of Pure and Applied Physics

Applications are invited to the above position, tentatively for October 1, 1980. The successful applicant will be expected to carry out research in astrophysics and must be prepared to undertake teaching in the Department of Physics.

Current programmes of the Astrophysics Research Group include studies of stellar atmospheres and interstellar gas. The research is carried out in the Department of Physics and the Department of Astronomy.

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Let us take two examples in fields which AUT is familiar. The University Grants Committee fulfils the role of adviser to the Government on universities. Yet, it has been insisted, and as far as we are aware Government insists, that advice is confidential. As far as we can see the only reason for this is to avoid the possibility of criticism of that advice, or the Government's failure to take heed of that advice.

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In the colony itself, the whole question of student fees has assumed a disproportionate importance. It is being linked with a variety of other issues which happen to have emerged at the same time and it is being viewed as the touchstone of whether Hongkong and the United Kingdom do, or do not, have a special relationship.

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## Union View

## The freedom not to answer the question

As a result of the Freedom of Information Act operating in the United States of America, pressure is being made available to the public and to interested parties about what goes on in the recesses of Government.

There is no state security involved here as there are no decisions that would harm Britain's commercial interests anywhere else in the world. More and more frustration is growing because of failure of Government and Government departments to do what they are doing.

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stipend, they are not in the position of salaried employees and they are therefore not only representing a buffer between Government and the universities, but are also there to represent the public interest and the public has every right to know what is being put forward on its behalf.

When we come to the Department of Education and Science itself (and here one is not making criticisms of individual civil servants), Ministers have a responsibility to keep interested parties informed of their decisions and the reasoning for these decisions. When it suits Ministers to do so, explanations are quite rightly given but so often we are the victims of such dissembling that it is beyond belief.

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## AUT

Over the past eleven sets of pay negotiations in which AUT had been involved, there have been no less than eight occasions when we had what were termed "principles" involved, where proposals sent to us just disappeared into limbo and we just could not find out what was happening. Civil servants tend to tell you that they are awaiting ministerial instructions when they know through other channels that the proposals were being chewed



